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Intestinal Obstruction

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Intestinal obstruction, of all acute abdominal emergencies, suffers the most from mismanagement. It constantly behooves us therefore to revise our methods of treatment and particularly to reconsider the lethal factors. It is becoming more and more apparent that the proper handling of intestinal obstruction depends essentially on an understanding of the physiology.

The most obvious physical finding in intestinal obstruction is distension. Distension is brought about by an accumulation of fluids and gas in the intestinal tract above the level of the obstruction. The fluid is the result of intestinal secretions which are increased in obstruction. At the same time there is decreased absorption of fluids, thus the tendency for fluid accumulation is marked. The origin of the gas is threefold. Intestinal putrefaction is commonly regarded as the chief cause but only approximately 10% comes from this source. About 20% of the gas arises by a diffusion of nitrogen from the blood and in the remaining 70% the gaseous distension arises from swallowed air, as can be proved by preventing distension in experimentally obstructed animals by esophageal ligation.

One of the most notable effects of obstruction is vomiting. This applies particularly to small bowel obstructions, where persistent copious vomiting results in dehydration and dechlorination. It has been noted that animals with high obstructions can experimentally be kept alive beyond their normal time of death by the intravenous administration of saline solutions. This method of treatment however is unable to prolong life in low ileal obstructions and this has led some to persist in the belief that there is an absorption of some noxious substance which proves fatal. It has, however, been shown that absorption of all known noxious agents is greatly delayed in obstructed intestines. This delay is well marked even with such drastic poisons as strychnin. It has also been repeatedly shown that the infusion of the portal blood of obstructed animals into those which are healthy produces no toxic symptoms. That lymphatic absorption is not the mechanism has been proven experimentally by the failure of thoracic duct division to prevent death. On the other hand it is shown that the peritoneal fluid in strangulating obstructions, and the fluid in the peritoneal cavity, found in the course of simple mechanical block, is extremely toxic and this has resulted in the modern con-

ception that the main cause of death in obstructions is the absorption from the peritoneal cavity of toxic substances. These toxic substances find their way into the peritoneal cavity by permeation through the devitalized intestinal wall, the devitalization being due to long continued distension. This loss of viability results in increased permeability and, if continued for a sufficient length of time, will result in perforation. Distension, besides reducing the viability and increasing the permeability, is known to increase the weight of the bowel. This increase in weight is due to the segregation in the bowel wall of both red cells and plasma, mainly the latter, and this local plasma loss, which reduces the effective blood volume, is the cause of the true surgical shock found late in intestinal obstruction.

Naturally in strangulating obstruction this effect is a great deal more marked because the strangulating mechanism first occludes the mesenteric veins, while the arteries continue to pump blood into the strangulated segment. The shock factor is therefore earlier and more marked in strangulating obstructions. This reduction in effective blood volume becomes more marked as the distension increases because of the segregation of blood in the lower limbs due to pressure on the vena cava. We can see from this that distension per se has three effects. The most important one is that of damaging the viability, and increasing the permeability, of the bowel wall, thus permitting entrance into the peritoneal cavity of noxious agents which are absorbed. It also accounts for a local blood loss into the intestinal wall and for the segregation of blood in the legs. One might surmise from this that if distension were prevented, death from obstruction would be greatly delayed. This is borne out by the beneficial effects seen recently in cases in which continuous gastroduodenal suction has been utilized. Animals with low ileal obstruction and in which distension was prevented by esophageal ligation lived for an average of fifty days, whereas death would normally have taken place in five days. We see then that the chief lethal factor in intestinal obstruction is continued distension. Secondary factors are loss of fluid and electrolytes and surgical shock.

The diagnosis of obstruction is based first and foremost on the recognition of intestinal colic. Intestinal colic is characterized by recurrent abdominal pain, which at its height is accom-

panied by unmistakable high pitched intestinal sounds heard with a stethoscope. It is present in all instances of intestinal obstruction except in those occurring in the esophagus, stomach or in the efferent loop of a gastro-enterostomy. The second most obvious sign is vomiting and in no other acute abdominal condition is the vomiting so copious and so persistent. This persistent copious vomiting is often diagnostic. You must remember that vomiting is minimal or absent in colonic obstructions due to the functionally active ileo-caecal valve and that so-called fecal vomiting is indicative of low ileal obstruction. The next most important findings are those seen on the X-ray plate, which will be dealt with later. Other signs are distension and constipation and the absence of increase in temperature, pulse and leucocyte count and also the absence of any change in blood pressure.

Intestinal obstruction must be differentiated from other conditions which produce intestinal colic such as entero-colitis, food allergy and dietary indiscretions. This differentiation is usually easy. Other colicky pains such as appendiceal, biliary and renal colics have no accompanying sounds.

Once the diagnosis of intestinal obstruction is established, decision must be made as to its type, because it is largely upon this that we must base the form of treatment. Obstructions are divided into two main classes—those mechanical in origin and those neurogenic in origin. The differentiation between these types is made mainly by a flat plate of the abdomen. Mechanical obstruction is characterized by finding a few grossly distended loops of bowel. Neurogenic obstruction is characterized by the appearance of smaller amounts of gas, and a greater number of loops of the bowel which do not appear to be so greatly distended and quite often the whole alimentary tract including the large bowel shows some gas. In the mechanical type of obstruction it is very important to differentiate simple mechanical obstruction from strangulating obstruction. This is done by finding local tenderness and sometimes a mass either abdominally or rectally, also the temperature and pulse are usually elevated and the blood pressure is quite often lowered. The patient often complains of a constant pain at the site of the obstruction, in addition to the intestinal colic. The X-ray, due to the accumulation of peritoneal fluid, shows an apparently thicker intestinal wall. Strangulating obstructions do not tend to display so much gaseous distention on the X-ray plate and vomiting is not such a prominent symptom. Neurogenic obstructions are of three types—inhibitive, paralytic and spastic. The Inhibitive form is characteristically seen during the post-operative gas pain period. The Paralytic variety is usually due to local peritonitis and resembles

clinically, and on the X-ray, a strangulating mechanical obstruction. The more marked tenderness and the history of the cause in Paralytic obstruction clears the diagnosis. Spastic obstruction is of the neurogenic variety and is usually confined to the large bowel. It therefore can hardly be differentiated clinically from malignant obstruction; but it is readily diagnosed at operation. It is a poorly understood condition and is occasionally found in lead poisoning.

Also important in the treatment is a knowledge of the site of the obstruction. The importance lies in the fact that large bowel obstruction must be treated surgically, whereas small bowel obstruction, under certain circumstances, may be treated by continuous duodenal suction. The first point to remember is that fecal vomiting is diagnostic of low ileal obstruction and that in large bowel obstruction vomiting, although often present, is not a marked feature. The diagnosis as to the site, in the main, depends upon the X-ray findings. Jejunal obstruction shows a few dilated loops, the edges of which are feathered, whereas in ileal obstruction the dilated loops have a smooth edge. Large bowel obstructions show huge distention of the caecum and moderate distention of the large bowel to the site of obstruction. There is usually gas present in the small bowel, but it is not grossly distended.

An obstruction is diagnosed as being complete if gas is found in the large bowel beyond the obstruction after an enema has been given to remove the gas which was originally present.

Treatment

In general it may be said that the most important factor in treatment is to relieve the distention, because as we have already seen, distention per se is the lethal factor in intestinal obstruction. Supporting methods of treatment are invariably necessary and resolve into the re-establishment of proper hydration by intravenous fluids, the correction of hypo-chloremia particularly in high obstructions and in the treatment of shock. If present, by the use of plasma, remembering that shock is invariably present in strangulating obstructions. The relief of distention by mechanical means can often be aided by the administration of 100% oxygen. Meanwhile the decision is being made as to whether the case can be handled by suction decompression or whether surgery will be necessary. We can say definitely that surgical treatment is always necessary in colonic obstructions, in strangulating obstruction, and in simple mechanical obstruction when no abdominal scars indicating previous surgical interference can be seen. Suction decompression is usually efficacious in incomplete simple mechanical block in a patient who has abdominal scars, and in post-operative obstruction. If the obstruc-

tion is of this type, and is complete, suction may be tried but the effect must be followed closely by X-rays and failure to decompress the patient, or increasing distention, indicates immediate surgical intervention.

In the operative treatment of obstruction one must always keep in mind that the important requisite is to relieve the distention both quickly and aseptically. In no other surgical lesion is it so necessary that the proper procedure be selected and that it be executed with technical perfection.

In early simple mechanical obstruction, where the distention is not great, it is permissible to look for and to relieve the obstructing mechanism.

In late simple mechanical obstruction a search for the obstructing mechanism is very trying to the patient and, because an adhesive band has likely already devitalized the bowel wall, handling often results in a tear at this site with peritoneal soiling from the highly toxic contents of the distended bowel. Therefore, in such a case, it is imperative that the search be not prolonged and that distention be relieved by an aseptically performed enterostomy in the distended bowel. Suction can be applied through the enterostomy tube. It often happens that no second operation for the relief of the obstruction mechanism is necessary, but should the need arise the operation can be done at a later date. Then there will be no distention and the danger of contamination will be greatly reduced.

Strangulating obstructions can always be recognized on opening the peritoneal cavity by the presence of bloody peritoneal fluid. It is imperative that the strangulating mechanism be relieved regardless of the condition of the patient. There is no alternative and when the cause has been removed the condition of the strangulated bowel will determine whether resection should be done by primary aseptic anastomosis or by some exteriorization technique. The procedure chosen will depend upon the experience and ability of the surgeon. It must be remembered that high intestinal fistulae, even when present for only a short time, are extremely debilitating. All intestinal anastomoses in obstructed bowel should be done by an aseptic technique as the contents of distended bowel are highly toxic.

For an obstruction of the large bowel, surgical treatment is always necessary and should be

carried out immediately because of the great danger of caecal perforation. Gastro-duodenal suction is not successful because of the valve mechanism at the ileo-caecal junction. Some form of decompressive operation is necessary and this can be done either in the caecum or transverse colon. A colostomy at the transverse colon is greatly preferable to a cecostomy as it can be performed more safely and quickly. The loss of fluid is not so great and the stoma is in the upper abdomen away from the field of future operation. It will be necessary at a later date to relieve the obstructing mechanism and as here the cause is usually cancer, resection will be necessary. Resection can be more safely performed if there has been a preliminary colostomy.

Inhibition ileus is treated by continuous duodenal suction and the administration by the B.L.B. mask of 100% oxygen. If the distention persists for more than 48 hours, repeat X-rays may be necessary to rule out mechanical obstruction or paralytic ileus.

The treatment of paralytic ileus consists of removing the cause, which is usually a local peritonitis following a ruptured appendix, or some similar intra-abdominal inflammatory lesion. In the meantime, of course, supportive measures are used and the suction is a necessary part of the post-operative treatment.

Spastic obstructions are rarely recognized pre-operatively, but when seen at operation no treatment is required. In spastic obstruction of the large bowel, however, it is probably wise to play safe and do an appendicostomy.

Due to the lack of time I do not propose to deal with the individual problems which arise in special types of intestinal obstruction such as obturation obstruction, due to gall stones, and intestinal obstruction in the new-born.

I would like to re-emphasize that in all forms of intestinal obstruction the diagnosis is essentially based on the recognition of true intestinal colic and the slightest suspicion should have X-ray confirmation. A flat plate of the abdomen is essential in suspected cases of intestinal obstruction.

The chief point in treatment is that intestinal distention, being the indirect cause of death, must be relieved. The diagnosis is based on the recognition of true intestinal colic, and X-ray confirmation is essential.



A Case of Psychosomatic Interest

Presented at Winnipeg General Hospital Staff Luncheon, October 18, 1945.

Dr. Wallace Grant

The Present Situation

This patient is a married woman of 39 years of age, admitted to the Psychopathic Hospital on October 4, 1945. Her husband was ill in July and when the doctor visited him he found the patient in bed, and apparently exclaimed, "Isn't it time you were up?" When he was informed that she had been in bed almost continuously since the fall of 1937 (about six months after a Thyroidectomy), he suggested she should be taken to the Psychopathic.

She was brought in by stretcher, smiling broadly, all the while complaining of aching flesh, pounding head, and inability to walk. Physical examination showed her to be a short woman under five feet, yet weighing 167 lbs. She co-operated vigorously, shed her gown with alacrity, and bounced around in bed like a young child. There was no neurological abnormality demonstrable. It was easy for her to sit up without using her hands, and she raised her legs off the bed easily against considerable resistance. On October 10 her B.M.R. was -1% . Blood study showed w.b.c. 7,000, 60 polys, 30 l., r.b.c. 5 million, Hbg. 100%. B.P. has been 100/60-120/70. Pulse steady at 80. Temp. usually 98°. Since physical study was completed she has been up and dressed and for the past week has been on a 1,200 calorie reducing diet. (P. 60, F. 60, C. 105.) This or the exercise has brought her weight down from 167 to 164 lbs.

The Management of Patient From a Somatic Point of View

This can be studied in an Out Patient file covering the period 1932-1938, and files dealing with Hospital admissions in spring and fall of 1937.

1. The first entry in O.P.D. chart is March 14, 1932. Post nasal discharge for eight years. (This in spite of Turbinectomy of 1924.)

2. A year later she complained of (a) itch all over the body—one month; (b) chronic right-sided abdominal pain—eight years (menstrual); (c) sleepy all morning—five years; (d) pains down both legs; (e) Leucorrhea; (f) Dyspareunia.

During the next month she was examined in Gynecology and Proctology O.P.D.—with no pelvic or rectal abnormalities discovered.

3. Three years later (in 1936) she was apparently still oppressed by various ills but gall bladder visualization and Ba series were not of help in discovering a source. She now had a pressure in the epigastrium and recurrent fear of

death besides the complaints of 1933. The blood picture was normal but her B.M.R. was -16% and X-Ray showed cloudy left antrum.

Thyroid was given, $\frac{1}{2}$ grain t.i.d. and in six weeks she was much better. She stopped taking this medication then and did not return for another year.

4. In February, 1937, there is no description of her condition but B.M.R.'s of $+27\%$ and $+31\%$ are recorded and a weight of 127 lbs. Dyspareunia was again complained of and pelvis reported as normal except for slight ovarian prolapse. By May, 1937, her B.M.R. was $+50\%$ and her weight 118 lbs.

5. Admitted to Hospital with signs of Thyrotoxicosis. B.P. 140/70. Pulse 100 (80-120), T. 98-99. Weight, loss. B.M.R. $+50\%$. But no palpable enlargement of thyroid or exophthalmos.

Other symptoms were: (a) Pain left shoulder—six months; (b) inability to concentrate—six months; (c) excessive perspiration—six months; (d) pressure in upper abdomen—one year; (e) weakness and palpitation—two years; (f) pain in rectum and constipation—four years; (g) nocturia—four to five years; (h) general pruritis (and vulvar)—six years; (i) tremor "inside" and in fingers—six years.

Subtotal Thyroidectomy on June 10. Both lobes and isthmus—50 grams. Report—"Graves Disease with Involution."

6. She recuperated in the country and a few weeks after returning was admitted to Observation Ward in an hysterical condition, seeing bugs and snakes.

The interne's brief history states in part: "She has a psychosis which seems to revolve around marital incompatibility . . . this is a most unsatisfactory and uninteresting case to treat and patient is to be discharged with prescription for Phenobarb gr. $\frac{1}{2}$ t.i.d. and h.s."

7. A month or so after this she took to her bed where she has remained except for two or three temporary cures, each of about six weeks' duration. One psychiatric in May, 1938. One via electric blanket in 1940. One by grace of Thyroid in 1942.

8. For the past two years she has not been outside her home.

The Psychiatric Study Brought Out the Following Information:

1. Heredity—(a) Father: alcoholic; one brother in Mental Hospital, and one sister has two sons in

Mental Hospital; (b) Mother—Psychoneurotic; one brother and two uncles suicided.

2. Early training:

(a) An only child—frequent temper tantrums; many fears especially of dark—adult inspired. Frequent bilious attacks.

(b) No instruction concerning sex or menstruation.

(c) Attempted assault at 12 years by an adult. Parents insisted on court action—the offender got 18 months and the child felt herself ostracized and a pariah as a result of parents' attitude and publicity. Quit school shortly after, largely because of this feeling.

(d) At 14 years—frequent sexual experiences (allegedly forced) with an uncle. She claims she was afraid to tell anyone because her mother had threatened that if such a thing happened she would kill the man and the child too.

3. Marital:

(a) Married on the rebound at 16 years after being jilted by one for whom she says she had more feeling than she has ever had for her husband.

(b) Husband seven years older and psychoneurotic. Has had three operations for right-sided pain which he still has and which he says is so bad he should never have married.

(c) Sexual incompatibility—alleged frigidity. Coitus interruptus until recently.

(d) Sexual experimentation with a number of men (due to dissatisfaction with husband and insatiable desire) in 1934, followed by extreme feelings of guilt but never confided in husband.

(e) Insistence of husband that she try to get rid of each pregnancy 1925, 1929, 1932, and 1934.

She tried medical means with the first two, refused to interfere with the third (because of which she claims her husband kept her crying throughout the nine months), and criminal abortion in 1934—concurrent in because she was not sure of the paternity of the expected child.

4. Extremely narrow and shallow interests of husband and wife. Absence of athletic and social activities—reading, community, or church interest.

5. I.Q. of 110 by Bellevue-Wechsler scale.

6. Thirteen out of thirty (almost 50%) pathological responses to Rorschach Cards.

The Problem

1. What is to be done?

(a) For the patient:

(i) Thyroid? (She has been getting prescription filled for past three years. Takes $\frac{1}{2}$ - 1 grain a day.)

(ii) Reducing diet?

(iii) Send her home and be satisfied with another six weeks' cure?

(iv) Prolonged institutionalization—one year?

(b) For the husband: Is psychiatric study of him justified?

(c) For the children:

Son—Killed at 19 in the R.C.A.F. in England, 1944.

Daughter—16, in Grade 10. Wants to be a nurse. Failed last year. Too often at home looking after mother.

Daughter—14, in Grade 9. Wants to be a stenographer.

2. How could condition have been prevented?

(a) Training of child—Sex instruction; parental attitude re assault.

(b) Premarital instruction?

(c) Psychiatric study in 1932 at 26 years?

(d) To what degree did the emotional factors described lead to Graves Disease in 1937?

Discussion by Dr. Brian Bird

I first want to compliment Dr. Grant on his presentation of this case. He covered the entire field but did it briefly and concisely, and I think you will agree with me that listening to him was quite painless.

The facts brought out by Dr. Grant demonstrate the far-reaching investigation necessary in all types of serious or prolonged illness. It is obvious that this woman could only have been helped by a thorough understanding of her problem. We do not wish to blame anyone for negligence in either treatment or understanding, and we readily recognize that both she and her husband are inadequate individuals, difficult to deal with and ungrateful for any help given. Anyone working with them is liable to become impatient and pessimistic. But I think we should remember that we are not practising medicine simply to earn gratitude and it is usually the most difficult and most unco-operative patients who need the most help.

This poor woman seems now to be beyond real aid. It is clear that her illness is highly motivated and she has escaped from the unpleasantness of life by taking to her bed. It seems almost certain that soon after we send her home she will again become an invalid. If all we know about her now had been known ten years ago and if it had been recognized then that she was taking refuge in illness, she might have been helped. Now it is too late.

I want to make clear that this is not an unusual or atypical case. It is far too common. We, of course, see many like it and I am sure all of you see them too. In this particular woman, a neurosis is associated with a history of thyro-

toxicosis and a thyroidectomy. I do not feel competent to discuss the exact relationship between psychiatric disturbances and a history of extirpation of the thyroid gland, except to point out a few significant findings.

Almost all psychiatric patients displaying thyroidectomy scars are female.

In a survey of 150 consecutive female admissions to the Psychopathic Hospital, 8% had thyroidectomy scars. It is not known whether this is higher than in the general female population. In Out-Patient cases no accurate survey has been made but it is a frequent finding.

The women we see who present a history of a thyroidectomy, can be grouped into three classes.

1. There is a large group who are obviously suffering from an Anxiety Neurosis and in whom a diagnosis of thyrotoxicosis was in error. Such women are weak, sleepless, anxious, jittery, perspire freely, suffer choking sensations and have a tremor. Their B.M.R. may be plus 15 or even 20%. They have improved for a few weeks after operation but when we see them months or years after the operation, they present the same symptoms unmodified or even worse.

2. Another group is one in which a neurotic woman suddenly develops definite signs of Grave's Disease and the gland on being removed shows pathological evidence of the disease. In this group it is possible that Grave's Disease is precipitated by the emotional disturbance. In them a thyroidectomy will relieve the gross signs of Grave's Disease but more than likely the mental disturbance will continue as before or will grow worse.

3. A third group is of women with a relatively stable background who develop Grave's Disease and in the course of the disease become unstable, excited or depressed or even delusional. In this group, where the background is good, an operation will most likely have entirely favorable results.

The only suggestions I have are these: Any one presenting signs considered to be due to hyperthyroidism should have a study made of her background, a study similar to that outlined by Dr. Grant of this woman.

If that study reveals a long-standing history of nervousness and anxiety and maladjustment, and if the signs of hyperthyroidism are not marked, the patient should be treated conservatively. It is likely that such a patient really suffers from an Anxiety Neurosis and an attempt should be made to relieve her anxiety.

If examination shows that the patient is really toxic but she also has an unstable, neurotic background, she should be treated actively by surgical or medical means to combat the toxicosis. However, no feeling should exist in either doctor or patient that this treatment alone will effect a cure because it certainly will not. In such a patient, treatment of her hyperthyroidism is only a part of an over-all plan and she will have to be followed and worked with intensively in order to improve or eradicate the conditions which precipitated her thyroid disease.

Finally, if examination shows that the patient has Grave's Disease, and that she has always been a stable sort of person without a history of previous mental disturbance, she can be told that thyroidectomy will effect a cure.

Influenzal Meningitis

Leonard Greenberg

Interne, Children's Hospital, Winnipeg

Hemophilus Influenzae is one of the three most common etiological agents of meningitis in infants and children. Six types of the organism have been recognized—A, B, C, D, E, and F. The great majority of cases of influenzal meningitis are caused by type B, although cases have been recorded in which it was believed that type F was the causative organism.

Until recently the mortality rate of influenzal meningitis has been 95 to 100 per cent. The advent of the sulphonamides, and more recently of type-specific rabbit antiserum, has brought about marked lowering of this rate.

According to Rivers¹, influenzal meningitis is a disease of infancy, 79 per cent of the cases occurring in infants under two years of age. There are no clinical features which in any way serve to differentiate it from other forms of acute purulent meningitis, so that in any patient with meningeal

symptoms and signs, especially infants and small children, the possibility of *H. Influenzae* as the infecting organism must be borne in mind.

An unimpressive upper respiratory infection followed by a bacteremia usually precedes the onset of meningeal symptoms. The clinical course of the disease may be fulminating as in meningococcal meningitis, or subacute as in tuberculous meningitis, or any variety in between these two extremes. The cardinal signs of meningeal irritation, e.g., stiffness of neck and back, Kernig's sign, etc., are usually present when the disease occurs in infants over seven months of age, but it is worthy of note that these signs are extremely unreliable in infants under this age; in them they seldom appear before the advanced stages of meningitis. An earlier and more reliable sign in this age group is an increase in intracranial pressure, which may be roughly estimated by

feeling the tension of the anterior fontanelle. Drowsiness, alternating with irritability, a high-pitched cry, a little tremor, and a vacant look in the eyes are other signs indicating meningeal involvement.

Absolute diagnosis of *H. Influenzae* meningitis depends on the demonstration of the specific organism on direct smear or culture of the spinal fluid, for quantitative chemical analysis and the cellular response of the fluid show nothing peculiar to influenzal meningitis.

Identifying *H. Influenzae* (After Alexander²)

"When gram negative rods or cocco-bacilli along with forms morphologically suggestive of meningococci are seen in smears of any biological fluid, the possibility of *H. Influenzae* should be considered." The organism as seen in smears or from culture of the spinal fluid is very pleomorphic, and frequently does not resemble the fine, gram-negative rod which students have been taught to associate with *H. Influenzae*. Direct typing and identification of *H. Influenzae* can be accomplished by demonstrating capsular swelling with type-specific antisera.

Present Plan of Treatment (After Alexander³)

The most successful results in the treatment of influenzal meningitis have attended the combined use of sulphadiazene and type-specific rabbit antiserum. There are several cases on record in which sulphonamides alone have been effective, but their success depends on two factors:

1. The infection must be mild.
2. The drug must be employed very early in the course of the disease.

Dr. Hattie E. Alexander, who was the first to prepare and use, effective, specific, rabbit antiserum, suggests the following therapeutic program:

1. As soon as the spinal fluid is shown to have a marked predominance of polymorphonuclear cells, 0.1 gm. of sulphadiazene per kg. of body weight is injected subcutaneously. This dose is repeated at 12 hour intervals for at least two doses. Subsequent dosage depends on the response of the patient, and the oral route is used as soon as possible. Meanwhile the spinal fluid is examined more thoroughly, particularly for organisms and for sugar levels.

2. Because of the large doses of sulphonamide and the inability to estimate just how much fluid the patient will take by mouth, it is advisable to give all patients an infusion of one-sixth molar lactate in 5% glucose at the start.

3. As soon as *H. Influenzae* has been demonstrated in the spinal fluid, the total antibody requirement diluted with 10 ccs. isotonic sodium chloride per kg. body weight is introduced by intravenous infusion, and the speed of the drip

so adjusted that two hours are required to administer the total volume. The dosage of antiserum required is based on the initial level of spinal fluid sugar as shown in the following table:

Table 1

Spinal Fluid Sugar (mg. %)	Mg. Antibody Nitrogen Indicated
Under 15	100
15 to 25	75
25 to 40	50
Over 40	25

Under ordinary circumstances the intrathecal administration of antiserum is not indicated, but may be resorted to under one of two conditions:

1. Where the infection has become chronic.
2. In acute types with low spinal fluid cell count in spite of the presence of numerous organisms in stained preparations of spinal fluid.

The following is a table of all the cases of proven influenzal meningitis seen at the Children's Hospital since 1936:

Table 2

Date	Age	Sex	Treatment	Result
1936	3½ yrs.	M	Non-specific	Fatal
1938	4 yrs.	F	Non-specific	Fatal
1939	2 yrs.	F	Prontosil	Fatal
			Anti-meningococcal serum	
1941	13 mos.	F	Sulphathiazole	Fatal
			Sulphapyridine	
1943	11½ yrs.	F	Sulphapyridine	Recovered
1943	6 mos.	F	Non-specific	Fatal
1943	4 mos.	F	Sulphathiazole	Fatal
			Sulphapyridine	
1943	7 yrs.	M	Sulphapyridine	Recovered
1944	14 mos.	M	Sulphathiazole	Fatal
1944	7 mos.	F	Sulphapyridine	Fatal
			Sulphadiazene	
1944	3 yrs.	M	Sulphapyridine	Recovered
			Sulphadiazene	
			Rabbit Antiserum	
1945	22 mos.	F	Sulphadiazene	Recovered
			Rabbit Antiserum	
1945	3½ yrs.	M	Sulphadiazene	Recovered
			Rabbit Antiserum	

Report of a Case

R. J. V., a 3½-year-old male child, under the care of Dr. H. Medovy, was admitted to hospital on October 8, 1945, complaining of headache, generalized aches and pains, delirium, vomiting, and obstinate constipation of six days' duration. These symptoms began with a sudden spell of pallor and then cyanosis following an ill-defined period of irritability.

On admission the youngster was flushed and apathetic-looking and obviously in a severely toxic state. Temperature was 102.2 F. (by rectum), pulse 110, and respiration 25. The lips, circumoral skin, gums, tongue and buccal mucosa were covered with herpetic lesions. The pharynx was somewhat congested. The neck and back were extremely rigid, the head held stiffly rotated to the right. The limbs were generally hyper-tonic. Kernig's sign was markedly positive.

Lumbar puncture produced a cloudy spinal fluid under markedly increased pressure. The initial cell count was 3,612, mostly polymorphonuclear; the sugar 20 mg. per cent. No organisms were seen on stained smear of the spinal fluid

so it was deemed advisable to treat the case as meningococcal meningitis until proved otherwise. Accordingly penicillin was introduced intrathecally and the patient started on a course of sulphadiazene by mouth and penicillin intramuscularly.

Approximately 16 hours after admission a repeat smear of the spinal fluid showed numerous Gram-negative pleomorphic organisms which resembled *H. Influenzae* morphologically. Penicillin was discontinued immediately and 75 mg. of antibody nitrogen of anti-*H. Influenzae* rabbit serum, well-diluted in normal saline, was given intravenously in three equally divided doses within an eight-hour period. Sulphadiazene was continued in a dosage of approximately $1\frac{1}{2}$ to 2 grs. per lb. of body weight per day. Forty hours after admission there was an abundant growth of *H. Influenzae* on a Levinthal culture plate, and the organisms were positively identified by capsular swelling produced with type-specific antiserum. Forty-eight hours after admission the dosage of sulphadiazene was increased to approximately $2\frac{1}{2}$ to 3 grs. per lb. per day in divided doses every four hours for a 72-hour period, but two doses had to be withheld because of the appearance of red blood cells and sulpha crystals in the urine. The dosage of sulphadiazene was then decreased to 2 gr. per lb. per day and finally to $1\frac{1}{2}$ gr. per lb. per day at which level it was maintained until the patient was discharged.

Under this therapeutic program, the patient gradually improved—he became more mentally alert, the stiffness of neck and back decreased, the herpetic stomatitis cleared, organisms dis-

appeared from the spinal fluid on the eighth day, the spinal fluid cell count fell from 3,612 to 153 and the sugar rose from 20 to 41 mg. per cent. He was discharged from hospital 18 days after admission, a normal, healthy child.

Comment

While it is impossible to draw any definite conclusions from the small series of cases seen at the Children's Hospital, it is nevertheless interesting to note that those patients who received anti-*H. Influenzae* serum recovered.

Alexander³ reports that of 87 patients treated with both sulphadiazene and antiserum, 68 (78%) recovered. She points out that the mortality rate varies inversely with the age of the patient, and is particularly high under seven months of age. In a review of 23 cases, Sako⁴ reports six deaths—a mortality rate of 26 per cent. All of the deaths occurred in infants under eight months of age. Of seven cases in this age group only one recovered. Of 16 patients eight months old or more, all of whom recovered, four received rabbit antiserum and two equine serum. All others received sulphadiazene alone. In spite of the excellent results Sako has derived by using sulphadiazene alone, he is still convinced that the ideal treatment is a combined therapy using rabbit serum in maximal dosage and sulphadiazene.

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German War Surgery*

A. A. Klass, B.A., M.D. (Man.), F.R.C.S. (Edin.)

How does German War Surgery compare with our own during the North West Europe Campaign from June 6, 1944, to May 8, 1945?

In a very interesting paper entitled "BLA Surgery"¹ Brigadiers Porrit and Debenham and Colonel Ross (surgical consultants respectively for the 21st Army Group, the Second British Army and the First Canadian Army) make this statement in reference to the condition of German soldiers who had been captured lying in German hospitals: "Chronic sepsis and toxæmia everywhere; pale drawn faces and the all pervading smell of pus; major joints drained; dozens, hundreds of empyemata; . . . guillotine amputations, brain fungi, metallic fixation of compound fractures, heavy uncomfortable plasters, bed sores galore, such was German war surgery of 1944-1945 . . ."

On the other hand, the results of Canadian and British surgery may be summarized in cold

figures: 70% (approx.) recovery in penetrating abdominal injuries²; a series of 1,365 penetrating wounds of the knee joint with only seven deaths (one-half of one per cent)³ with a septic joint becoming a very rare complication; 90% of delayed primary sutures healing by first intention⁴.

But somehow cold figures do not give quite the same picture—for comparison with the German one—as by walking through the wards of any Canadian, British or American hospital in the combat areas. It was sometimes hard to realize that these cheerful robust patients were only a few days ago war casualties; that the rows of flat temperature lines were from cases of war wounds, and certainly hard to believe that the enthusiastic group huddled in a corner over a pile of francs in a "crap" game, were only two or three weeks ago wounded on the battle field.

As a further check on the validity of our results, I believe it may be interesting for comparison—

* Read before the Winnipeg Medical Society.

perhaps a rough one because comparative figures are not available—to have a look at some German surgery in this theatre.

During the later part of the Normandy campaign, there would frequently pass through our hospital (a Canadian General Hospital which at that time was sited just off the line of communication at Dieppe), overflows of German wounded being evacuated to England. Those I saw were German soldiers treated by German surgeons in their own hospitals, which had been captured in the rapid advance following the break through at Caen. A large proportion of these, greater than warranted by the type or severity of the wound—were extremely ill. However, I believed at that stage, that one could not place the blame entirely upon German surgical method. The problems posed by the rapid German retreat must have been colossal. The possible effects of a breakdown in their own medical arrangements under such difficulties could not be considered fairly as indicating the usual level of German war surgery.

But even here the differences in German surgical method became apparent. ● ● ● ●

Case Record. A German soldier 30 years of age had been wounded eight weeks prior to the time I saw him. Except for two or three days he had been under the care of German surgeons. He had received a through and through bullet wound of his forearm three inches below the elbow with some comminution but no gross displacement of the shaft of the ulna. There was no injury to main vessels or nerves. Among our own troops such a wound—commonplace enough—was treated according to a standard that almost invariably resulted in the patient being up and about on the ward between two and three weeks after wounding, with the soft tissues sutured and healing by primary union, with supple joints at the fingers and shoulder: in short, with a soldier well on the road to recovery. Compare this with the treatment this German soldier received at the hands of his own surgeons. A hard rubber through and through drain had been inserted along the track of the missile without preliminary adequate wound excision. He had received sulpha therapy but no blood was administered and of course no Penicillin. The whole upper limb including the shoulder and to the very tips of the fingers had been encased in a heavy plaster of paris spica. The pale drawn waxy face, and the sunken eyes presented the perfect picture of the chronic septic state. He stank of stale pus, his temperature rose each afternoon to between 103° and 104°, his haemoglobin was 35% and there was little doubt that neither he nor Hitler had any further use for each other. When his plaster was removed it was evident that although there was practically no discharge from the drainage tube, the whole

of the forearm and hand—from elbow to base of fingers was one large bag of pus. In the region of the wrist the carpal bones were floating free. The only treatment worth considering was amputation.

My next view of German war surgery was at an exchange of wounded prisoners of war out of Dunkirk—about a month prior to the end of the European war. We received the allied wounded who had been treated at the German hospital in Dunkirk. Beyond encasing in plaster nothing whatever had been done—no wound excision—no blood transfusion—no sulpha therapy and happily no drainage tube. Here again I believed it was unfair to arrive at an objective conclusion regarding German surgery on the basis of their treatment of captured allied personnel.

However, the opportunity for a fair appraisal of the level of German war surgery came on May 12, 1945. All the German wounded, numbering some 600, who were in the German hospital in Dunkirk were evacuated to our wards and came under our care.

The atmosphere of the hospital wards changed overnight. The lines of thin, drawn, bleached faces, the anxious sunken eyes, the row on row of septic temperature charts, the ponderously heavy casts that effectively immobilised into fixation not only neighboring joints but the whole patient, the sopping, green-stained dressings—and pervading everywhere, the smell of pus.

The mainstay of German surgical armamentarium was the thick, hard-rubber drainage tube, many of the size of a piece of ordinary rubber garden hose. These were inserted anywhere and everywhere—from pure through and through soft tissue bullet tracks to chest wounds, and—what seems almost incredible—through and through major joints such as shoulder, knee and ankle. These were allowed to remain in place for months. One of the clearest recollections I have is in removing one of these pieces of garden hose from an ankle joint, holding the foot up and seeing the light from the other side. Almost invariably a wounded joint was a septic joint and there was a number of excised knee joints with ends of bare bones lying in a bag of pus. All the amputations—there seemed an unusually large proportion—were of the guillotine type. Many had been left for three months or more with attempt at neither closure nor prevention of skin retraction. The elementary principle of maintaining mobility in unaffected joints was disregarded. Wounds of the arm or forearm were associated with a stiff immobile hand. Of the twenty odd chest wounds on my wards all had empyemata. The paraplegics all had septic urine and were dribbling by overflow.

One case of fulminating tetanus occurred which was interesting on several points. I had never seen a single case of tetanus in any form among any of the thousands of allied wounded that passed through our wards. Secondly, this man developed tetanus while receiving Penicillin which would corroborate the opinion already held that Penicillin in its usual dose is not effective either in the prevention or treatment of tetanus. Lastly, intravenous injection of anti-tetanic serum, even with ordinary skin testing can be dangerous. In order to augment intra muscular injection, intravenous injection was administered. Death followed immediately. A more complete record of this case will be made the subject of a separate report.

A few days after the capitulation I visited the German hospital in Dunkirk. The equipment was first class. It included a modern X-ray machine and an excellent operating room completely fitted. There was no apparent shortage of supplies. Although the senior German medical officer told me they were short of plaster of paris, the ponderous and frequently unnecessary plaster casts which encased their wounded did not exactly corroborate the statement. While in this hospital I was informed that a British driver had been seriously injured by a mine and was being brought in to hospital. To prepare for whatever emergency measures might be necessary, I proceeded to check the instruments in the operating room. Upon an uncovered table was a heap of assorted instruments. I selected those which I thought might be needed and instructed the German orderly to have them sterilized. He clicked his heels smartly and replied that they were already sterile and in fact that this was the sterile instrument table. I inquired whether they were ever kept under cover. His reply was: "Oh, yes, we cover them every night." It did not surprise me thereafter that even their so-called clean cases (herniorrhaphies and appendicectomies) had a disproportionate percentage of gross wound infection.

They had no Penicillin but had ample stores of sulpha drugs and \dagger marfanil³. Incidentally the large proportion of septic wounds seemed to indicate that sulpha therapy alone was not an effective prophylactic. There was no blood bank and in so far as I could ascertain, there was none in any German military hospital. Blood transfusions of any kind were a rarity. The pale, waxy faces bore ample testimony to that. Nor could the generally poor nutritional state of their wounded be blamed on nutritional deficiency prior to wounding. The rest of the garrison at Dunkirk appeared well fed and evidently had an ample diet to the very end.

[†] Sulphonamidobenzylamine hydrochloride, reputed by German workers to possess considerable activity against anaerobes and used for local wound prophylaxis by the German army.

The reason for the level of surgical treatment achieved in our own armies can be attributed to two factors. Firstly, the principle that everything possible must be done for our wounded; secondly, superlative planning and organisation. It was a triumph of organisation, affecting science, government, and industry, that gave us adequate supplies of penicillin at the time it was needed. Moreover, it was superlative organisation that gave our surgeons unlimited supplies of fresh whole blood at whatever place it was required. Lastly on the administrative and consultive level of our medical corps, it was excellent administration that set a high level of surgical policy in an atmosphere of mutual confidence between consultant and surgeon.

Being curious to determine why the standard of German war surgery had fallen to such a level—or perhaps more accurately why it had not kept pace with ours—I spoke to as many of their medical officers as I could. The following were the impressions I received.

On the highest policy making level of the Nazi regime, the attitude towards the casualty was to write him off, in so far as his value as war potential was concerned. To the extent that it was important, from the point of view of morale, to do a minimum for the wounded—this minimum was done; but for the sake of economising on man power no more than a minimum. They were unwilling therefore to divert man power from either science or industry toward the development of Penicillin—although they knew about it and could certainly have produced it. They were unwilling because they believed it would pay them no dividend in terms of fighting force, to organise and develop a blood transfusion service, to which so many of our soldiers owe their lives today.

On the score of straight surgical method, their director of surgical services was the internationally famous thoracic surgeon Sauerbruch. I hope my thoracic surgeon friends will not be too hard on me for expressing the opinion that the quintessence of German surgical skill in this war seemed to be the insertion of a hard rubber drain.

Regarding skilled surgical personnel there is little doubt that the Germans were deficient. The Nazis believed it best to do away with mere theory in the teaching of medicine, and that bold forthright military surgeons could be produced in a total medical course of three years. One saw evidence at every hand, that procedures were being performed by men who knew little and cared less for the basic principles of good surgery. Furthermore, there is no doubt that numbers of their top level surgeons were either banished for racial or political reasons, or were relegated to inferior posts as they were elbowed out of the

way by the politically accepted Nazis in the profession.

To further add to the depletion of their surgical skill, following the attempt on Hitler's life by a group of officers in 1944—existence for the German officer and in particular the German medical officer—became very difficult. They were under the constant supervision of a rigid Gestapo and even criticism on professional matters was interpreted as criticism of the Fuehrer. In Dunkirk the Senior German surgeon was removed from his post in December, 1944, for expressing an unfavorable

opinion on the supply situation. His assistant, a recent graduate, a stalwart Nazi, an atrocious surgeon, was placed in charge.

In my mind there is only one conclusion—German war surgery fell to this low ebb because it became dissociated from what is essentially an international field of scientific endeavor. It became Nazi Surgery.

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Doctors Returned to Civilian Practice From Armed Forces

The following doctors have been discharged from the services and are now back in practice. Their office addresses and telephone numbers are given so that you may easily inform their old patients where they may be found:

Name	Address	Telephone No.
Adamson, Dr. Gilbert L.,	Winnipeg Clinic, Winnipeg	97 284
Adamson, Dr. J. D.,	Winnipeg General Hospital	87 681
Anderson, Dr. Julius,	185 Maryland St., Winnipeg	404 065
Barrie, Dr. J. G.,	11 Rosewarne Ave., St. Vital	204 643
Bell, Dr. P. G.,	Deer Lodge Hospital, Winnipeg	62 821
Bissett, Dr. E. D. R.,	Pine Falls, Man.	
Bleeks, Dr. Cherry K.,	105 Medical Arts Bldg., Wpg.	93 273
Brown, Dr. M. M.,	508 Medical Arts Bldg., Winnipeg	93 889
Carleton, Dr. M.,	603 Boyd Bldg., Winnipeg	94 763
Clark, Dr. C. W.,	216 Medical Arts Bldg., Winnipeg	94 354
Cohen, Dr. R.,	600 Boyd Bldg., Winnipeg	93 275
Cooper, Dr. Ross H.,	212 Medical Arts Bldg., Winnipeg	93 103
Corrigan, Dr. C. E.,	307 Waterloo St., Winnipeg	401 271
Cram, Dr. J. B.,	409 Power Bldg., Winnipeg	95 165
Davidson, Dr. Kenneth,	6 Medical Arts Bldg., Wpg.	95 683
Croll, Dr. L. D.,	661 Broadway, Winnipeg	72 138
Davidson, Dr. A. M.,	6 Medical Arts Bldg., Winnipeg	95 683
Downey, Dr. J. L.,	333 Bartlett Ave., Winnipeg	46 751
Easton, Dr. S.,	216-7 Curry Bldg., Winnipeg	26 477
Elvin, Dr. Norman L.,	314 Medical Arts Bldg., Wpg.	95 317
Fahrni, Dr. Gordon S.,	105 Medical Arts Bldg., Wpg.	93 273
Hamilton, Dr. Glen F.,	408 Medical Arts Bldg., Wpg.	93 846
Henneberg, Dr. C. C.,	302 Medical Arts Bldg., Wpg.	92 710
Hillsman, Dr. J. A.,	308 Medical Arts Bldg., Winnipeg	97 329
Hitesman, Dr. R. J.,	512 Medical Arts Bldg., Wpg.	94 808
Jauvoish, Dr. S.,	206 Boyd Bldg., Winnipeg	93 240
Kobrinsky, Dr. Sydney,	505 Boyd Bldg., Winnipeg	93 912
Lansdown, Dr. L. P.,	Pine Falls, Man.	
Lyons, Dr. R.,	420 Niagara St., Winnipeg	404 009
MacDonnel, Dr. J. A. K. (lady),	Winnipeg Clinic	97 284
MacKinnon, Dr. W. B.,	661 Broadway, Winnipeg	72 138
Malkin, Dr. S.,	701 Boyd Bldg., Winnipeg	97 223
McKenty, Dr. V. J.,	205 Boyd Bldg., Winnipeg	94 112
McNicol, Dr. H. L.,	Deer Lodge Hospital, Winnipeg	62 821
Medovy, Dr. Harry,	401 Boyd Bldg., Winnipeg	93 849
Neilson, Dr. Clive,	404 Medical Arts Bldg., Winnipeg	94 041
Perrin, Dr. M. B.,	614 Medical Arts Bldg., Winnipeg	98 740
Ramsey, Dr. F. G.,	90 Lenore St., Winnipeg	39 531
Revell, Dr. D. G.,	Winnipeg General Hospital, Wpg.	87 681
Richardson, Dr. R. W.,	105 Medical Arts Bldg., Wpg.	93 273
Smith, Dr. F. Hartley,	86 Tache Ave., Norwood, Man.	203 993
Sommerville, Dr. A. N.,	614 St. Mary's Rd., St. Vital	
Stephenson, Dr. Earl,	409 Power Bldg., Winnipeg	95 165

Swartz, Dr. David,	303 Medical Arts Bldg., Winnipeg	92 639
Swan, Dr. R. S.,	215 Medical Arts Bldg., Winnipeg	94 354
Tanner, Dr. A. R.,	310 Medical Arts Bldg., Winnipeg	95 946
Tisdale, Dr. Paul K.,	Deer Lodge Hospital, Winnipeg	62 821
Walton, Dr. C. H. A.,	Winnipeg Clinic, Winnipeg	97 284
Walton, Dr. Fred A.,	3 Locarno Apts., Winnipeg	45 719
Whelpley, Dr. E. H.,	586 Ingersoll St., Winnipeg	39 061
Brownlee, Dr. T. I.,	Russell, Man.	
Davidson, Dr. D. A.,	Cartwright, Man.	
Jacobs, Dr. A. L.,	The Pas, Man.	
Varverikos, Dr. E. D.,	Selkirk, Man.	



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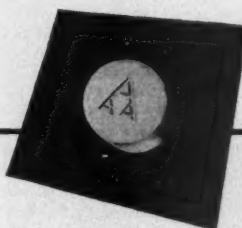
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Clinical Luncheon Reports

St. Joseph's Hospital

Polycythemia Vera.

Dr. Sidney Kobrinsky

Dr. Kobrinsky presented a man of 45 who for two years had been suffering from weakness, headaches, dizziness. He also noticed that his colour was blue especially in the face and hands. He said that his father had also been blue for about five years before his death. Previous examiners had diagnosed his condition as due to blood-pressure disturbances. Apparently some had found it high and some low. Dr. Kobrinsky said, that when first seen, the patient was distinctly cyanotic. His eyes were prominent and the conjunctivae congested and watery. He was dyspnoeic even at rest and his fingers showed clubbing. The spleen was enlarged to below the umbilicus, firm but not tender. Otherwise examination was negative. The blood pressure was 128/78. An electrocardiogram showed left axis deviation. The erythrocyte count was 8 million. There were 13,000 white cells. The cell volume was 60% and the total blood volume 7,000 cc. Treatment, so far has been phlebotomy, — of blood having been withdrawn on — occasions. This has given symptomatic relief.

Polycythemia may be relative or absolute. Relative polycythemia occurs when the circulating red cells are above normal but the total number is not increased. It results from decrease in plasma as in excessive vomiting, severe diarrhoea, profuse sweating. Rarely it is emotional. (Adrenalin excess empties the splenic reservoir.) In absolute polycythemia the total number of red cells is increased. It may be secondary (erythrocytosis) or primary (erythremia). Erythrocytosis is analogous to leucocytosis and is the response to oxygen want. It occurs in (1) states of diminished oxygen tension (high altitudes, pulmonary arteriosclerosis); (2) sluggish blood-flow (chronic heart disease—mitral stenosis, congenital); (3) displacement of oxygen in cells (by carbon monoxide, sulph- or met-haemoglobin anilin, etc.).

Erythremia (Osler's disease, Vaquez's disease, Polycythemia vera) is analogous to leukemia. The cause is uncertain. It may be (1) neoplastic; (2) the antithesis of pernicious anaemia (excess of erythrocyte maturing factor overstimulates the marrow); (3) the antithesis of splenic anaemia (all bone-marrow elements are increased, in splenic anaemia they are all diminished); (4) a form of Buerger's disease (the vascular changes in the marrow are identical with those of Buerger's disease in peripheral vessels). According to this theory the pathogenesis is: vascular changes, lowered oxygen tension in the marrow, stimulation of erythropoiesis.

The blood changes affect the red cells (7-10 million, many immature) the white cells (20 or more thousand, many immature). The platelets are increased. The blood-volume and cell-volume are increased: may be doubled. The blood is "sticky" and thrombosis occurs easily in the vessels of brain, heart and limbs. The colour-change is striking in the face, nose, ears, hands. It is a bluish red. Neurological symptoms preponderate (headache, dizziness, tinnitus, visual disturbances, paresthesias, hemiplegia). Next most frequent are gastro-intestinal complaints (indigestion, epigastric pain, hematemesis, splenomegally). Cardiac symptoms are less common (dyspnoea, chest oppression, palpitation, coronary thrombosis). The blood pressure may be raised. In polycythemia hypertonica (Gaisbock's disease) the spleen is not enlarged.

Treatment includes bleeding, drugs and radiation. Patients may be used as blood donors. Phenylhydrazine is effective but dangerous. The dose should be kept under 5 grains daily (1 grain to 1½ grain t.i.d.) and not given for more than six days. It causes intense blood destruction and may lead to aplasia of the marrow or severe liver damage. Counts must be taken frequently. Radioactive phosphorous is effective when used with caution. X-radiation of the whole body (front one day, back the next) for six days is the optimum method of treatment. The disease can be halted but not cured.

J. C. H.

St. Boniface Hospital

Anesthesia in Shock

Dr. Marjorie Bennett

A report by Hershey, Zweifach, Chambers and Rovenstine, of New York, was reviewed. The influence of anesthetic agents on the peripheral circulation was demonstrated by their studies of the peripheral blood vessels in the exteriorized omentum of dogs subjected to ether, cyclopropane or pentothal anesthesia. The effects of graded hemorrhage were then noted. The reactions observed were sufficiently definite to allow their use as a basis for comparison of the different anesthetic procedures. Clinical impressions agreed with the conclusions drawn from the laboratory data, that ether is to be avoided in circumstances of hemorrhage. Cyclopropane seems much better suited for such operative conditions. Pentothal gave variable and unpredictable results, generally intermediate between those of ether and cyclopropane.

Albright's Syndrome

Dr. H. M. Edmison, Dr. H. Funk, Dr. J. W. Simpson

The history, clinical data and X-ray findings were presented of a case in which a diagnosis of

Albright's syndrome had been made. The patient was a male of twenty years of age who had had an unusual type of non-elevated pigmentation of the skin of the right chest, the right temple and the right buttock since birth. There was also some asymmetry of the bones of the face, the right side being larger, first noticed at about six years of age. A short time previously, pain in the region of the right upper chest and shoulder occurred after a minor injury.

X-ray examination of the right shoulder and ribs showed marked cystic changes in several of the ribs on this side and a pathological fracture of the second rib in the mid-scapular line. Cystic changes were also seen in the right humerus. Further examination revealed similar lesions throughout the skeleton. The bones of the right side of the base of the skull were considerably thickened and sclerosed. The bones not involved were apparently normal and showed no evidence of decalcification.

The blood levels of both calcium and phosphorus were within normal limits and the phosphatase was slightly elevated. No other significant changes were noted.

This syndrome was first described by Fuller Albright in 1937 and distinguished from hyperparathyroidism. It is thought that this is the fortieth case of Albright's syndrome to be reported in the literature. A full account of this case as well as a discussion of the disease is being prepared for publication.

Perforated Gallbladder, Paralytic Ileus

Drs. N. Book and R. O. Burrell

A woman of 74 was seen by Dr. Book who found her suffering from symptoms typical of acute cholecystitis. He saw her again some hours later and left instructions for the night because no bed was available in any hospital. During the night she became worse and, when seen the following morning, the abdomen was found to be distended and much more tender in the gallbladder region. There was vomiting and constipation. She was hospitalized 78 hours after her symptoms began. She was then cyanosed. The pulse was very rapid and the temperature was 103. There was great abdominal distension and widespread pitting oedema. The systolic blood pressure was 90. The leucocyte count was 26,000. A flat plate of the abdomen showed many distended loops of small bowel pushed over to the left side by a right sided mass. The diagnosis was made of paralytic ileus secondary to rupture of an acutely inflamed gallbladder. Seven hundred cc. of plasma were given and operation performed. The gallbladder was found to be ruptured, the bowel was distended and there was free pus in the peritoneal cavity. The gallbladder was drained

through the perforation and the peritoneum drained through the abdominal incision. Post-operatively the patient was given 500 cc. of whole blood and 700 cc. of plasma during the eight hours she survived. At one time during this period her blood pressure rose to 120.

Discussion centered around two points: (1) whether death was due to shock or to heart failure; and (2) the effect of delay in operation. The answer to the first question would seem to lie in determining the mechanism of the oedema. This was general and widespread, all parts of the body showing the presence of subcutaneous fluid. This is what one would expect as the result of the hypoproteinemia associated with shock. In that case plasma was indicated. In a person of this age the heart was almost certainly weak. The low blood pressure was evidence of this. The effect of suffering, vomiting and infection over many hours might be enough to use up its reserve. Then the administration of so much plasma could have been harmful. There was a good deal of discussion on this point. It was probable, however, that both factors were at work.

The second point considered was the delay in operating. This patient, apart from her age, was in serious danger from the primary condition—acute cholecystitis. Had she had operative help by midnight the first day of her illness she might have survived. The delay (78 hours) in getting a bed probably cost this patient her life.

J. C. H.

Victoria Hospital

Perforating Carcinoma of Sigmoid and Ovarian Cyst

Dr. J. E. Tisdale

Dr. Tisdale's patient was a woman of 60 who supported herself and her blind husband as a scrub woman. She failed to report for work one day and this led her mistress to investigate. She was found in bed in pain and Dr. Tisdale was called. He found her suffering acutely. The abdomen was distended but in an unusual way. A mass was felt to one side of the midline. Otherwise it was the belly of acute peritonitis. The woman was put in hospital. Her temperature was 103 and the pulse rate was 120. She was in such poor condition that operation was considered inadvisable. She died in two days. Dr. Tisdale's diagnosis was of ovarian cyst and peritonitis but the mass and the peritonitis could not be readily fitted together.

At autopsy Dr. Lederman found extreme abdominal distension. The peritoneal cavity contained 5-6 litres of seropurulent fluid with much mucoid material. The sigmoid colon showed an ulcerating carcinoma which completely encircled the wall for a distance of 2½ inches. It had

perforated into the peritoneal cavity and a section showed mucoid areas. The left ovary was enlarged to a diameter of 5 inches and consisted of a typical pseudomycinous cystadenoma. There were no metastases from the malignant tumour. Dr. Lederman said that one seldom sees today a perforating carcinoma of the bowel. He said, also, that the short history of illness and the general condition of the patient were at great variance with the marked pathological changes. J. C. H.

Carcinoma of Ovary in a Child

Dr. O. G. Hague

This child was first seen a year ago at which time she presented a tumour twice the size of a fist in the right side of the abdomen. The X-ray suggested that this was connected with the stomach. Under medical treatment and deep therapy the mass decreased in size and the child gained 17 lbs. in weight. Her last admission to hospital was in April of this year. She was greatly emaciated, could not sit up, had been without appetite for months and presented a huge mass in her abdomen. She died a few days after admission. Dr. Lederman said that according to information received from the Cancer Clinic in Regina the child was in good health until 1942. At this time she had pain in the abdomen and loss of weight. In August, 1942, an ovarian tumour weighing 5 grams was removed. There were no details about this operation. The child remained well, until 1943, on symptomatic treatment. She reported to the Regina Cancer Clinic in July, 1944. At autopsy the chief finding was a tumour 11" x 8" x 5½" the origin and nature of which was not at first clear. The possibility of a Wilm's tumour involving the right kidney was the first suggestion. However, on further investigation Dr. Lederman decided that this was a rare ovarian malignancy. He said that this type of neoplasm occurs at or before puberty, is undifferentiated, causes no sex changes, does not metastasise, and is of a relatively low degree of malignancy. It can be completely removed and, when this is done early, cure results. The tumour is very radio-sensitive. The question was asked if the nature of the growth had been overlooked at the first operation. The result in this case would suggest the extirpation of the whole ovary instead of removing only a part of it. J. C. H.

Gangrene of Appendix Epiploica with Thrombosis of Omentum

Dr. S. L. Markovits

A woman of 58 was seen on October 2nd. On September 30th, she had suddenly developed pain in the left lower quadrant. This had persisted as a steady "gnawing", occasionally crampy, feeling which steadily increased until she could

neither move nor sleep. There were no other symptoms except constipation for two days. Examination on October 2nd was negative apart from the abdomen. It was not distended and moved slightly on respiration, but in the left lower quadrant there were rigidity, tenderness, rebound tenderness and cutaneous hyperaesthesia. Pelvic examination was negative. The temperature was 99 and the pulse 80. Diverticulitis was suspected and the patient was moved to hospital. There the urine and leucocyte count were found to be normal. A barium enema was negative. The film showed shadows in the gall-bladder area which were interpreted as stones. Meanwhile the patient was in great and continuous pain which any movement greatly aggravated. Nausea was constant but vomiting occurred only once. She had no fever and the pulse rate did not change. Diverticulitis having been excluded, ruptured ovarian cyst or rupture into the left rectus seemed probable. The distress of the patient was so great that it was decided to operate. The abdomen was opened by a right para-median incision. The sigmoid was found wrapped in an indurated mass, and when freed, revealed a gangrenous appendix epiploica which had ruptured. Further examination showed the mass to be thrombosed omentum surrounding the gangrenous epiploic appendix and adherent to the anterior abdominal wall. The gall-bladder contained stones. The epiploic appendix, the thrombosed omentum, the diseased gall bladder and the vermiform appendix were removed. The pathologist reported thrombosed omentum, thickened gall-bladder containing stones and fibrosed appendix. Recovery was uneventful. This case is reported for two reasons. First, the condition is rare. Second, the signs and symptoms of the acute abdomen, even when atypical should be heeded.

Winnipeg General Hospital

Interstitial Littre Hernia Associated with Ectopia Testis

Dr. Jacob Hollenberg

Patient is a twenty year old male, complaining of painful swelling in right groin for two days. There were no signs of intestinal obstruction. The right testicle was not in the scrotum. The tentative diagnosis was torsion of an undescended testicle, or twisted omentum in a hernial sac.

At operation the hernial sac was subcutaneous, its contents a gangrenous Mackel's Diverticulum. There was no sign of an undescended testicle in the inguinal canal but rather an ectopic, or mal-descended, testis medial to the pubic tubercle. (Ectopic testes have been found in the perineum, Scarp's Triangle, in the abdominal wall above

the inguinal ligament, or in front of the pubes as in this case.)

Orchiopexy was carried out by Ombrédanne's transseptal procedure, the maldescended testicle being brought through an incision in the scrotal raphe and fixed in the left side of the scrotum with the normally placed left testicle. The inflamed Meckel's Diverticulum was excised and the hernia repaired. The patient was allowed up on the second post-operative day, and now, on the eighth day has no discomfort and the wound is well healed.

This type of hernia was first described in 1700 by Littre. It is extremely rare as the Diverticulum itself was found in less than one percent of abdominal operations.

Dr. Penner reported on the specimen removed. The distal end of the Diverticulum was dilated and filled with pus. Across the neck was a thin diaphragm with a minute perforation in its centre.

Idiopathic Methemoglobinemia

Dr. Harriet Perry

Case History Presented by Dr. Roberta McQueen

The patient, a forty-eight year old graduate nurse, was admitted to the Winnipeg General Hospital on October 26 because of staggering gait, twitching hands, and memory defect, of three weeks duration. She had signs and symptoms of long-standing Raynaud's Disease and her skin was a peculiar slaty-blue color.

Past Illnesses—Diphtheria, Acute Nephritis. A physical examination was passed in 1935 for insurance. June, 1945—Bilateral Thoracosympathectomy for Raynaud's Disease with much improvement for over a month.

Physical Status—Chalky deep blue cast to the skin. Mucous membranes all dark blue. Lungs—"Minimal generalized fibrosis." Heart—"Enlarged to the left." B.P. ranged from 150/90 to 210/110. Extremities—Fingers and toes cyanosed and cold; some tendency to clubbing in fingers of right hand. Blood study and urinalysis essentially normal but spectroscopic examination of the blood repeatedly revealed a methemoglobin band.

Inquiry regarding contact with possible toxic substances:

1. Few drugs have been taken:
 - (a) Two courses of Sulphonamide in 1941 for Septic Sore Throat.
 - (b) Occasional Frosst No. 222 for headache.
 - (c) Barbiturates occasionally as sedative.
2. No contact with aniline dyes.
3. No abnormal exposure to coal dust or gas.
4. Smokes about twenty cigarettes a day.

Biochemical Aspect Discussed by Dr. Frank White

If Potassium Ferricyanide is added to blood which is then examined spectroscopically, a distinctive black band appears in the red of the

spectrum; the methemoglobin band. This cannot be well distinguished from the sulphhemoglobin band except that on adding to the blood a reducing agent, the band disappears if due to methemoglobin but persists if due to sulphhemoglobin. This band is seen only if more than twenty percent of the hemoglobin is methemoglobin, which is an oxidation product of hemoglobin, but the oxygen is in such combination as not to be readily given up, hence oxygen exchange is interfered with and cyanosis appears.

The Clinical Types and Treatment Were Outlined by Dr. Perry

Types according to etiology:

1. Toxic—Due to drugs.
2. Hemorrhagic—Associated with severe infections, especially in babies.
3. Enterogenous—Due to changes in the intestine (in Ulcerative Colitis treated with Bismuth Subnitrate).
4. Idiopathic.

Treatment—Administration of an oxidizing agent:

1. Methylene Blue—Its toxic effects are a disadvantage.
2. Ascorbic Acid (cf. B.M.J. June 12, 1943).

This is given in a dosage of 200 mgm. a day together with a drachm of Sodium Bicarbonate which raises the renal threshold for Vitamin C and hence helps maintain an adequate blood level. There is usually a marked subjective improvement within a week, due to cure of the relative anemia as methemoglobin disappears.

Discussion by Several Members of the Staff

Dr. Ormerod—There are essentially two types of drug the ingestion of which may lead to the development of methemoglobinemia:

1. Aniline derivatives—Phenacetin, Sulfonamides, etc.
2. Nitrites—Vasodilators, and reduction product of Bismuth Subnitrate in the bowel.

Dr. Medovy—Some knowledge of the condition is important in Pediatrics:

1. Certain "blue babies," alleged to be suffering from Congenital Heart Disease, actually have Methemoglobinemia.
2. A recent outbreak in Iowa was found to be due to the use of contaminated well water in formulae. If tree roots grow through the well-casing nitrates are apt to be given up to the water, and these are reduced to nitrates in the baby's bowel.

Hence any case of cyanosis in a baby, in which the cause is at all obscure, merits spectroscopic examination of the blood for the methemoglobin band.

Giant Cell Tumor of the Ulna with Excision and Reconstruction**Dr. Duncan Croll**

The patient is a thirty-two year old woman who in June, 1944, suffered some trauma to the ulna with persistent swelling and tenderness. In November, 1944, an aspiration biopsy examined at the Regina Cancer Clinic showed this to be a Giant Cell Tumor. X-ray of the ulna revealed enlargement of its distal two inches, X-ray of the chest was negative. Treatment at that time was curettement and carbolic cautery. In April, 1945, the X-ray showed the bone cavity to be filling, apparently satisfactorily with new bone.

A month later the patient began to fear that the enlargement was recurring, and by July there was no question about it. On October 24 there was an ovoid enlargement of the distal two inches of the ulna, which was firm and tender with some induration of the overlying tissue. Function was interfered with to a considerable extent, there being a twenty percent loss of supination and a fifty percent loss of pronation. Serum calcium was 10.1 mgm., inorganic phosphorus 4.3 mgm., and alkaline phosphatase 5.8 King Units per 100 cc. The patient was four months pregnant.

Operation was performed on October 27. The distal three inches of the ulna was resected and replaced by a graft from the fibula (intramedullary peg). An effort was made to fit the graft so as to have some lean toward the radius, and it was cut slightly long to allow for some spontaneous rounding-off.

Dr. Croll emphasized the fact that blood "alkaline phosphatase" was found to be normal in this case, although it is usually elevated in patients having bone tumors, Osteitis Deformans, and Hyperparathyroidism.

Dr. Funk commented on the unusual site of this tumor. It more commonly occurs at the lower end of the femur and radius, and upper end of humerus, tibia and fibula. They usually respond well to radiotherapy but in this instance excision and bone-grafting appear to have been indicated.

Dr. A. T. Cameron spoke briefly on the use of blood phosphatase determinations as diagnostic aids. This enzyme is derived from several sources such as bone and liver, from which it leaks into the blood. When determined in an alkaline medium ("alkaline phosphatase"), values of 5-13 King Units are usually found. Higher values occur if there is bone destruction (tumor, rickets, etc.), and in jaundiced patients. If phosphatase activity is measured at a pH of 5 ("acid phosphatase"), values do not normally exceed 2 King Units, but are much higher in prostatic carcinoma, especially if there be metastases to bone.

W. G.

Medical Happenings for December**Tuesday, 4—**

Luncheon, Misericordia Hospital, 12:30 p.m.

Wednesday, 5—

Tumor Clinic, Winnipeg General Hospital, 9:00 a.m.

Thursday, 6—

Luncheon, Winnipeg General Hospital, 12:30 p.m.

Tuesday, 11—

Luncheon, Grace Hospital, 12:30 p.m.

Wednesday, 12—

Tumor Clinic, Winnipeg General Hospital, 9:00 a.m.

Wednesday, 12—

Meeting, Council, Winnipeg Medical Society, 12:30 p.m.

Thursday, 13—

Ward Rounds, Children's Hospital, 11:00 a.m.

Thursday, 13—

Luncheon, St. Boniface Hospital, 12:30 p.m.

Friday, 14—

Tumor Clinic, St. Boniface Hospital, 10:00 a.m.

Tuesday, 18—

Luncheon, St. Joseph's Hospital, 12:30 p.m.

Wednesday, 19—

Tumor Clinic, Winnipeg General Hospital, 9:00 a.m.

Thursday, 20—

Ward Rounds, Children's Hospital, 11:00 a.m.

Thursday, 20—

Luncheon, Winnipeg General Hospital, 12:30 p.m.

Friday, 21—

Tumor Clinic, St. Boniface Hospital, 10:00 a.m.

Friday, 21—

Meeting, Winnipeg Medical Society, 8:15 p.m., Medical College.

Wednesday, 26—

Tumor Clinic, Winnipeg General Hospital, 9:00 a.m.

Thursday, 27—

Ward Rounds, Children's Hospital, 11:00 a.m.

Thursday, 27—

Ward Rounds, Children's Hospital, 11:00 a.m.

Thursday, 27—

Luncheon, St. Boniface Hospital, 12:30 p.m.

Friday, 28—

Tumor Clinic, St. Boniface Hospital, 10:00 a.m.

Friday, 28—

Tumor Clinic, St. Boniface Hospital, 10:00 a.m.

Friday, 28—

Luncheon, Victoria Hospital, 12:30 p.m.

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spoonful (60 drops) diluted to one
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Something Old

The Thracian Charm

The charm will do more, Charmides, than only cure the headache. I dare say that you may have heard eminent physicians say to a person who comes to them with bad eyes, that they cannot cure his eyes by themselves, but that if his eyes are to be cured, his head must be treated; and then again they say that to think of curing the head alone, and not the rest of the body also, is the height of folly. And arguing in this way, they apply their methods to the whole body, and try to treat and heal the whole and the part together. Did you ever observe that this is what they say?

Yes, he said.

And they are right, and you would agree with them?

Yes, he said, certainly I should.

His approving answers reassured me, and I began by degrees to regain confidence, and the vital heat returned. Such, Charmides, I said, is the nature of the charm. Now I learnt it when serving with the army, of one of the physicians of the Thracian king, Zamolxis. He was one of those who are said to give immortality. This Thracian told me that the Greek physicians are quite right in these notions of theirs, which I was mentioning, as far as they go; but Zamolxis, he added, our king, who is also a god, says further, "that as you ought not to attempt to cure the eyes without the head, or the head without the eyes, so neither ought you to attempt to cure the body without the soul; and this," he said, "is the reason why the cure of many diseases is unknown to the physicians of Hellas, because they are ignorant of the whole, which ought to be studied also; for the part can never be well unless the whole is well." For all good and evil, whether in the body or in human nature, originates, as he declared, in the soul, and overflows from thence, as from the head into the eyes. And therefore, if the head and body are to be well, you must begin by curing the soul; that is the first thing. And the cure, my dear youth, has to be effected by the use of certain charms, and these charms are fair words; and by them temperance is implanted in the soul, and where temperance is, there health is speedily imparted, not only to the head, but to the whole body. And he who taught me the cure and the charm added a special direction: "Let no one," he said, "persuade you to cure the head, until he has first given you his soul to be cured by the charm. For this," he said, "is the great error of our day in the treatment of the human body, that physicians separate the soul from the body." And he added with emphasis, at the same time making me swear to his words, "Let no one,

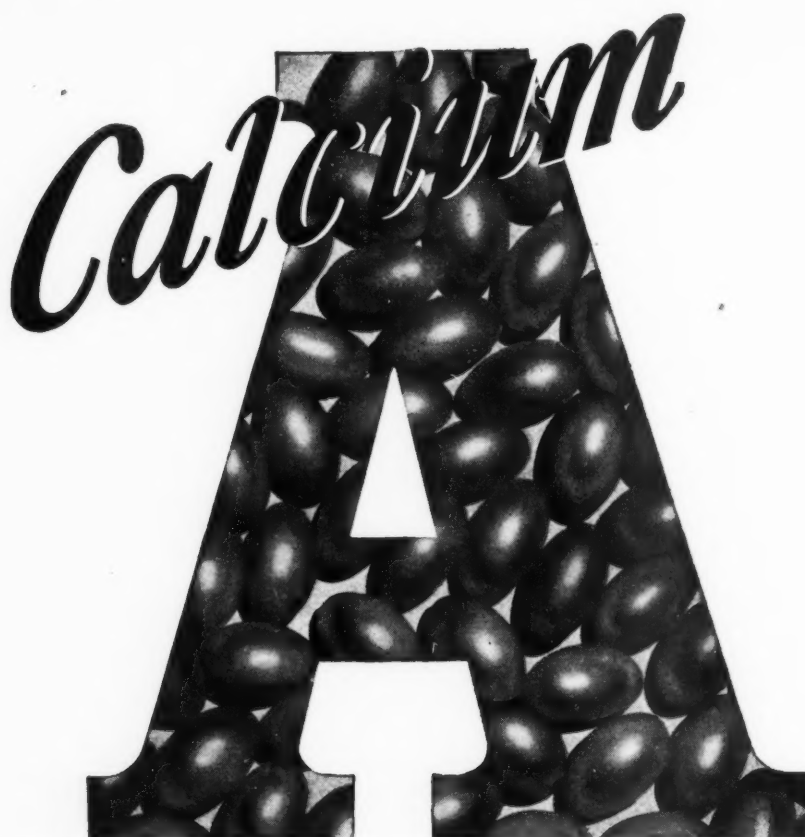
Something New

Hepatic dysfunction and not pancreatic disease is usually responsible for **glycosuria and hyperglycemia in adults**. Low-grade liver damage is prone to occur in the fourth decade or later and all adult diabetics reveal signs of this damage. The blood-sugar level is unstable but averages 200-250 mg. percent. There are alterations in total protein, in albumen-globulin ratio, in cholesterol and cholesterol esters, in bilirubin, etc. The liver damage permits the disturbance of blood-sugar regulation and so is responsible for hyperglycemia and glycosuria. Because there is no significant increase in the blood-sugar or in the excretion of sugar when these patients are given a high carbohydrate diet, Taub, Shlaes and Rice (Chicago) prescribe 400-800 grams of carbohydrate in the diet. This diet has a restorative effect upon the liver. The reaction to insulin is a guide to the presence of hepatic hyperglycemia. In this condition response to protamine zinc insulin is poor but to regular insulin unduly prompt.—Ann. Int. Med. 22:852.

That justly feared complication of sulphonamide therapy, **agranulocytosis**, has been cured by penicillin according to Dameshek and Knowlton of Boston. Sulphathizole had been given daily for some days to a patient with a puerperal sepsis, then, after a week's discontinuance, was again given for three weeks. The development of high temperature led to an examination of the blood. The picture showed anaemia, leukopenia and complete agranulocytosis. The patient was given intramuscular injections of penicillin every three hours for eight days and, in all, 800,000 units were injected. By the third day temperature was normal and the white cell count 18,000. The woman recovered.—Bull. New England Med. Cent. 7:143.

Out of 900 well nourished women in the last three months of pregnancy 190 showed evidence of **ariboflavinosis** (glossitis, cheilosis, angular stomatitis). Several of the women had suffered in the same way in previous pregnancies with spontaneous recovery after delivery.—K. Brown et al, J. Ost. & Gynec. Brit. Emp. 52:43.

however rich, or noble, or fair, persuade you to give him the cure, without the charm." Now I have sworn, and I must keep my oath, and therefore if you will allow me to apply the Thracian charm first to your soul, as the stranger directed, I will afterwards proceed to apply the cure to your head. But if not, I do not know what I am going to do with you, my dear Charmides.—The Dialogues of Plato, "Charmides."



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Doctors and Saints

It was a doctor — Doctor Luke — who gave us the Christmas story. This is, then, an appropriate time to say a word about medical saints. St. Luke was a Greek, a citizen of Antioch, and it was in his native city that he first met Paul in 50 A.D. Being a Greek his conversion entailed his first of all becoming a Jew, after which he was admitted to the Christian fold. His relationship to Paul was not only that of associate in missionary excursions but more particularly that of friend and physician. The "Beloved Physician" is the way the apostle writes about him. It was natural that Luke should be adopted by his own profession as its patron saint. In ancient manuscripts he is depicted in attendance upon the dying, giving them physical ease and spiritual help in their hour of agony. It used to be the practice here, and has for many years been the custom in Great Britain, for doctors to go to church in procession on the Sunday nearest to St. Luke's Day (October 18). It was a seemly thing and might well be restored.

Medicine has two other but less well-known saints. These are Cosmas and Damian, brothers who flourished in late Third and Fourth Centuries. The principal source of information about their lives is the "Golden Legend," a medieval collection of the lives of the saints. The Legend gives several versions of the principal events in the lives of Cosmas and Damian. Their birth place is given variously as Asia, Arabia and Rome. All agree that they studied in Syria, travelled widely and refused payment for their services. They were exceedingly effective in their efforts and were accredited with many marvellous cures among animals as well as men. The circumstances of their martyrdom are not clear. According to different versions of the Legend they suffered in Rome under either Diocletian or Carinus, or in Cilicia under Lysias. In any case all versions agree that while the brothers defended themselves the head of their judge was suddenly twisted so that it faced backwards. After their condemnation they were crucified and arrows were shot at them. The missiles, however, returned upon the bowmen. Then they were stoned, but again the stones fell upon their throwers. Next they were wrapped in chains and flung into the sea. But the waves loosed the chains and set them free. Finally they were decapitated. Their bodies, after many wanderings, were at last interred in Munich. Cosmas and Damian were widely accept-

ed by medieval physicians as patron saints. In 1226 the Surgeons' Guild of Paris chose the brothers as their patrons and the school for surgeons was named the "College St. Come." They were the protectors also of the ancient Medical School of Bologna and their figures are engraved on the Great Seal of that University. The physicians, however, did not alone come under their care, for surgeons (then an inferior order), barbers, hernia healers, apothecaries and even wet-nurses, shared their patronage.

In addition to these sanctified doctors the "Golden Legend" includes a number of saints whose patronage was of a more limited extent. Thus St. Apollonia was patroness of the dentists. St. Blazius of throat doctors, St. Odillia in Germany, Ste. Claire in France and St. Lucia in Italy were patrons of the ophthalmologists. Ste. Anne was invoked by obstetricians.

All pagan mythologies included deities who presided over health or were regarded as responsible for disease. The ibis-headed god Toth and the deified physician Imhotep were the principal Egyptian representatives. Imhotep was actually a legendary physician who was so successful that he was ultimately deified. In Greece the principal god of healing was, of course, Apollo. Aesculapius was his son born of a woman (Koronis). Thus Aesculapius represented the union of divine wisdom with humanity. By such a combination alone, it is written, can the perfect physician be made. Koronis (so says the story) died in the process of delivery and her son was saved by Caesarian section performed by Apollo. It is believed by many authorities that Aesculapius, like Imhotep, was an historical person who, by reason of his great deeds, was raised to the ranks of the demi-gods.

The Romans had a god or goddess for every symptom (Febris, Pallor, Parvor (fear) all had their altars) but the physicians disdaining the lesser members of the pantheon adopted Jupiter himself as their patron. This link between Jove and the doctors is still unbroken for every time we write a prescription we begin by invoking (quite unwittingly) the aid of Jupiter. The astrological sign for Jupiter is a crescent and a cross arranged somewhat like the right hand part of the R sign. A plain R stood for recipe, "take thou with the assistance, or blessing, of Jupiter." This superscription or invocation was not the least important part of an ancient recipe. Many times, I am sure, was Jove invoked to assist the

apothecary in making out the doctors' writing, and sometimes, perhaps, the doctor himself hoped that the magic of the name might give results which he was sure his medicine alone could not accomplish.

J. C. H.

Louis IX and the Bloody Flux

Every time I hear dysentery mentioned I think of poor King Louis and his mutilated unmentionables. Louis was in charge of the 6th Crusade and, while in Egypt, he contracted that common ailment of those days the "bloody flux." I expect the adjective was not always confined to cases in which the discharge was sanious, but was commonly applied, as well it might be, as an epithet. Such a use would certainly have been justified before Damietta in the year 1250. To get back to King Louis, we read in the Chronicle of Joinville that His Majesty was constrained to cut off the nether part of his drawers, so frequent were his necessities. It would be difficult to find words better suited to combine dignity and dysentery.

The defeat of the Saracens demanded a powerful frontal attack but inasmuch as the King, his officers and his men were heavily and almost constantly engaged in rear actions it is not surprising that the Paynims triumphed. Indeed to them the crusaders must have been almost literally "sitting ducks." Anyway, of the whole army, they captured what they did not kill. But the slaughter wrought by the disease and by the Infidels was terrific. There was a bridge across the river near the Christian camp and this was so badly constructed that it acted as a trap for the thousands of corpses which had been flung into the river higher up. The stench of piles of festering corruption added to the miseries of the ailing and famished crusaders.

Another disorder was also present — scurvy. "We ate no fish the whole of Lent save eels; and the eels ate the dead for they are a gluttonous fish. And so because of this evil and for the unhealthiness of the land there came upon us the sickness of the host, which sickness was such that the flesh of our legs became spotted, black and earth-coloured, like an old boot; and with us, who had this sickness, the flesh of our gums putrefied; nor could anyone escape from this sickness, but he had to die. The sign of death was this, that when there was bleeding of the nose, death was sure. The sickness began to increase in the host to such sort, and the dead flesh so to grow upon the gums of our people, that the barber surgeons had to remove the dead flesh in order that the people might chew their food and swallow it. Great pity it was to hear the cry throughout the camp of the people whose flesh was being cut away; for they cried like women labouring of child.

J. C. H.

Reading Guide

It is the custom of movie magazines (at which I occasionally glance) to list each month previous and current plays that have won their approval. In a similar way we mean to list each month the books which our reviewers regard as excellent. At the time the review is read the reader may not find any particular need for the book but later such a need may arise and by then perhaps even the title has slipped his mind. By printing the titles in each issue we hope to keep them before you so that when the occasion arises you will have the reminder you need. The month in brackets is the issue in which the book was reviewed.

Control of Pain in Childbirth. Lull & Hingston (May), \$9.50. Recommended as a reliable guide to the relief of women in labor.

Essentials of Allergy. Creip (May), \$6.00. A clear, comprehensive and complete guide to the subject.

Surgery of the Hand. Bunnell (June), \$15.00. Beautifully and copiously illustrated. Has been described as the best book ever published on the hand.

Radiological Examination of the Small Intestine. Golden (June), \$8.00. A sine qua non for those who must have knowledge of the X-ray appearance of the small bowel.

The Patient as a Person. Canby Robinson (July), \$3.50. Discusses the role of personality in disease.

Patients Have Families. Richardson (August), \$3.50. Reveals the influence of family and patient upon each other. These two books, Robinson's and Richardson's, are profitable reading for everyone, but especially for those who are interested in psychosomatic medicine.

Medical Licensure Examinations. Rypins (September), \$7.50. The arrangement of text and questions is such that this book can be used as a means of reviewing almost the whole field of medicine.

Essentials of Body Mechanics in Health and Disease. Goldthwaite et al (October), \$6.00. An excellent exposition of the importance of body mechanics, especially in chronic disease, and it is important.

Doctor in the Making. Ham and Salter (November), \$2.50. A tip-top book for every youth who is, or means to be, a medical student.

Ventures in Science of a Country Surgeon. Hertzler (November). Dr. Hertzler has given this book freely and with a lavish hand to everyone who has asked for it. It should be read by every intern as a source of inspiration.

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Editorial

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A Welcome Contribution

Leonard Greenberg's paper on Influenzal Meningitis is doubly welcome. For one thing it is a well prepared and very creditable production: for another thing it will, I hope, inspire his fellow internes to go and do likewise. The preparation of a written paper is a profitable exercise especially when it is the result of careful clinical study, intensive reading and active discussion with others; for "Reading maketh a full man; conference a ready man; and writing an exact man." Only when he has it on paper can one realise how much or how little he knows about a subject. I hope that many other internes will be inspired and encouraged to send us contributions.

Looking Backward

Pearls, I understand, are formed by reaction to an irritant. In looking over the twelve issues which make up Volume 25 of the Review I am led to the conclusion that I am a fairly successful irritant. I ask myself how many of my colleagues would have provided their literary pearls had I not irritated them into activity? I should think that the past year has seen at least three times as much medical writing as we might otherwise have expected. And it has been useful writing. We have announced no great or epoch-making discovery but we have touched upon many subjects and given our readers a "refresher course" in which the rare and the common-place, the old and the new have all found place.

As you will see from the index, 40 authors have contributed 48 articles. Diseases of every system have been dealt with. The cultural aspects of medicine have not been neglected and it is no fault of ours if our readers have not learned a little about the history of medicine. I have been most agreeably surprised at the number of readers who by word of mouth and by letter have told me that they enjoy the backward glances given under the heading "Something Old." Others tell me that they have found the short abstracts useful. The less serious contributions which, for the most part, appear on the Notice Board draw comment in excess, I think, of their value but "a little nonsense now and then, is relished by the wisest men." Economics has also been regularly dealt with by Dr. Moorhead and the Department of Health has kept our readers au fait with the matters in which it is interested. Now we have promise of current information about the activities of the Council of the C. P. & S. and I am hopeful that Dr. Lougheed will bring

before us those civic matters which affect and concern us.

During the coming year we hope to make the Review larger and still more useful. Moreover, when restrictions are removed, there is reason to believe that circulation will nearly double.

Marihuana

How dangerous is marihuana? That's a question I am quite unable to answer. According to the report of the Mayor's Committee it is a nuisance rather than a menace. According to some reviewers of that Report it is pernicious in the extreme. On both sides of this argument are men of high standing whose words should carry weight and, in the absence of any personal knowledge, such conflict of opinion leads to confusion. In order to get an authoritative opinion on the matter I wrote to the Narcotics Division at Ottawa. In his answer Colonel Sharman said that, as it had "developed into a somewhat controversial subject from the medical angle" he felt that it would be inappropriate for him to attempt to settle the matter, but he supplied a voluminous collection of reports, letters, and criticisms, most of which went to show that marihuana addiction was a serious matter not to be dismissed lightly.

I am satisfied that there is no marihuana problem in Manitoba. It is, however, quite possible that one may arise for as the potent narcotics become harder to get addicts may be driven to the feebler but more available hemp. In considering the menace of marihuana, or, indeed, of any habit-forming drug, it is well to remember the words of E. W. Adams that the ultimate origin of addiction "lies in a defect of the personality impelling a search for some agent which will temper the wind of reality to the psychically shorn lamb." Almost, if not quite, without exception drug addicts are unstable personalities who take flight into drugs just as other unstable personalities take flight into illness. The problem of drug addiction, therefore, is less the matter of a drug than the question of a personality. Means should, of course, be taken to keep pernicious drugs out of the hands of those whom they may enslave; but the real problem of addiction lies in the treatment or care of the person who is, or may become, an addict. The potential addict selects the drug which best suits his personality. The irritable and worried may prefer morphine or a barbiturate. The phlegmatic finds stimulation in cocaine. Hashish brings to some calm and peace of mind. When one cannot be obtained another will be substituted. Easiest of all to find is alcohol. The potential addict will choose if he

can. The deprived addict, finding one door shut, will look further for another that is open. Addiction is not a matter of drugs; it is a matter of personalities.

Psychosomatic Medicine

Dr. Grant's paper in the present issue leads me to make comment on this important and modern topic. There is, however, no new thing under the sun and psychosomatic medicine is no exception. It is as old as medicine itself. Certainly it is older than Hippocrates for in the Dialogue of Plato entitled "Charmides" we find this advice coming from the lips of Socrates: "Let no one," he said, 'persuade you to cure the head until he has first given you his soul to be cured. For this,' he said, 'is the great error of our day in the treatment of the human body, that physicians separate the soul from the body.' The essence of psychosomatic medicine is this—that the soul and the body form a unity, the two being so closely interwoven and blended that neither can be affected alone and both influence each other.

From the earliest times an appreciation of this fact has governed the thought and practice of the great men in medicine. It was the reiterated precept of the Father of Medicine that the study of the patient was the chief duty of the physician. It was also his practice to learn in every way possible what manner of person he was called upon to treat. We find, however, that in every age there has been a tendency for doctors to become so wrapped up in theories that they bent their efforts to fitting the patient's complaints into this or that hypothesis. Yet in every age we find a few men of greater vision urging their colleagues back to the ancient practice of Hippocrates—back to the patient and the bedside.

A good example of the ancient practice of psychosomatic medicine is the classical story of Antiochus, son of Seleucus, King of Syria. Antiochus had for many months been languishing under an ailment so obscure that none of many distinguished physicians had been able to give him relief. Greatly anxious about his son, the King besought the aid of the then scarcely known Erasistratus. While Erasistratus was examining his patient, the room was entered by the King's young and beautiful wife, Stratonice. Immediately the Prince betrayed signs of great emotion. His pulse raced. His colour changed. He breathed sighs. After she had gone Erasistratus asked Antiochus about his feelings towards his step-mother and suggested that in this concealed love affair lay the cause of his illness. Then the physician laid the matter before the King who, realising that it would be easier for him to obtain another such wife than to beget

another such heir eagerly agreed to relinquish his claim if he could so cheaply recover his son's health and his own peace of mind. And so was the sick Antiochus restored to health by the practice of psychosomatic medicine. Incidentally Seleucus, by way of showing his gratitude, pressed 100 talents (\$150,000) into the hands of Erasistratus.

For close upon a hundred years, ever since Virchow published his theory of cellular vitalism, the body and not the soul has been the object of medical concern. Structure and obvious function, especially when abnormal, were the bases of practice and the prime considerations in theory and research. This situation was the result of an almost universal belief in Rokitansky's conviction that "pathological anatomy must be the foundation not only of professional science but also of professional treatment." Moreover a mechanical age was opened when Morton and Simpson made surgery humane and Pasteur and Lister made it safe. Surgeons, until then the barely tolerated lackeys of the physicians, strode forward from their obscurity, seized the opportunity to employ their skill and piled marvel upon marvel as they, like a new order of Knights Errant, rescued the otherwise doomed and snatched countless thousands from the chains of infirmity and the very jaws of death.

The success of surgical attack strengthened the belief that every symptom had an organic basis (if we could but find it) and a structural cause. When failures occurred they were attributed not to a fault in the theory but to inadequacy of knowledge. Gradually the many came to realise what was always known to the few, namely, that the surgeon's knife can relieve only those whose sickness is due to structural change and that there are many ailing ones whose tissues show no such change. Often these have symptoms which seem clearly to incriminate an organ. Yet often it happens that the integrity of that organ is proven by the persistence of symptoms after the supposedly offending viscus has been removed. Where there is no gross somatic pathological change neither surgery nor medicines will cure.

A realisation of this has turned the direction of our inquiries. Now we have become more curious about man's other part—his soul or mind or psyche. Not that this is a completely new research. The psyche has been an object of inquiry from the earliest times, but advance in our knowledge of it has been much slower for it cannot be sectioned and stained and examined under the microscope. Yet it, too, has its physiology and pathology which are as of great importance in the understanding of sickness as are their somatic equivalents. The study of psychopathology got its real start with Freud and, while the

disciples of Virchow were forging ahead rapidly, the disciples of Freud were not idle. Now we have a much clearer idea of the way the psyche behaves and we realise that in its reactions and disturbances lie the reasons for much ill-health.

These two paths of advancement, the somatic and the psychic, have converged and psychosomatic medicine is the result. It proclaims that there is no true dichotomy between body and mind, for both the somatic and psychic characteristics of the individual are present in, and carried by, the fertilised ovum. Each of these aspects of the personality influences, and is influenced by, the other. In health the psyche and soma are in harmonious adjustment with each other and with their environment. Loss of that adjustment results in ill-health and treatment requires that the role played by each factor should be properly assessed.

The psyche produces somatic symptoms through the autonomic nervous system. Flushing, pallor, sweating, dryness of the mouth, gastro-intestinal and cardiac irregularities, urinary symptoms—all of these are of autonomic origin, all can occur transiently in normal people and all can be the persistent symptoms of the neurotic patient. In such patients there is a constitutional tendency to develop emotional tension—their nervous system is congenitally hypersensitive. The degree of irritability and the degree of instability determine the ease with which, and the extent to which, a stimulus will produce an excessive reaction. The difference between an emotional upset in a normal person and the illness of a neurotic is only one of degree. In the normal person the disagreeable symptoms are of short duration and their cause is understood. In the neuropathic person the symptoms are the same but they are of long continuance and their origin is not understood by the patient.

Congenital hyper-reactivity of the autonomic nervous system is associated with hypersensitivity of the hypothalamic centres and from these, as from a broadcasting station, impulses go to all the viscera. Which organ or system will respond with symptoms depends on a variety of factors. In every one there is an organ or system that is "congenitally inferior". This region is likely to respond more readily and more strongly to a stimulus. Again an organ or system can become "conditioned" by having already been the site of symptom-production. Trousseau had a patient who was so sensitive to roses that the sight of an artificial rose brought on an attack of asthma. Often, if not usually, the organ chosen is the one which is best able to express symbolically the patient's emotional problem.

Often one hears it said that many of the people who go to doctors have nothing the matter

with them—that it's "all in their minds." That is wrong. Everyone who seeks medical advice is sick but not everyone is diseased. We can define disease as the result of structural damage, and illness as the occurrence of symptoms in the presence of structural integrity. Patients may thus be "ill" and not "diseased" or "diseased" and also "ill." In the study of a case our first question must be "Is this patient diseased and if so where and to what extent?" The second question is "What proportion of his symptoms is due to disease and what proportion to illness?" A person who has a disease is rarely free from some degree of emotional distress. Not infrequently the distress is more disabling than the disease. For example a small, innocent swelling may raise in a patient the fear of cancer, especially if he has been "sensitised" by reading or hearing about the condition. Successful assurance that the swelling is benign will abolish the illness and leave only such symptoms as are really due to the disease. Again a patient with a gastric lesion may attribute all his vomiting to that cause and even go so far as to plead for an operation when actually the disease in his stomach is responsible for very little of his distress. In such cases the patient's emotional reaction to things in general and to his disease in particular "facilitates" his reflex response to such a degree that vomiting is produced with abnormal ease. Here we may find all three symptom-producing factors at work simultaneously. "Weak stomachs" (i.e., constitutionally inferior alimentary canals) may "run" in the patient's family. The presence of disease in the stomach "conditions" that organ. Economic or domestic difficulties may have given rise to situations that "sicken" him. The illness is therefore more significant than the disease and is likely to persist unless the mechanism of the symptoms is made clear to the sufferer and steps taken to relieve the tension by removing its causes.

The physical symptoms of psychogenic origin are chiefly visceral and are expressions of tension which may be general or focal. General tension shows itself as irritability, anxiety, worry about one's self. The focal tensions reveal themselves in special organs or systems. For many reasons the gastro-intestinal system and the heart are very frequent sites. Focal tension is usually a local intensification of a general and widespread increase of tone. Thus anxiety may have a special intensity or centering in one organ or another. The organ and how it misbehaves afford clues to the reason for its misbehaviour. The war-bride of an only son lives unhappily with her mother-in-law. She is irritable, anxious and vomits frequently. The vomiting is a recent symptom and occurs after she has had an argument with

her mother-in-law. It is an expression of her disgust. A man who is afraid that he has a brain tumour, and who recently lost a friend from that cause, seeks advice about his dizziness. He is very anxious, worries a lot and at times staggers. His reflexes are exaggerated but organically he is sound. He got his present job when jobs were many and men were scarce. He does not "pull well" with his employer and is afraid that he will be discharged. He is dizzy only when he has to interview his employer or when he sees signs of his fear being realised. His unsteadiness at these times is symbolic of his economic instability. Both of these persons were under great tension. Neither could find expression in action or in speech. In both, their troubles "boiled up" and found expression in symptoms. Explaining to them the mechanism of their symptoms was sufficient to allay their fears of serious disease and made it possible for them to plan adjustments whereby the causes would be removed.

Symbolism without tension may show itself in areas of somatic nervous distribution. A boy who felt that his parents and brothers were working him too hard suddenly lost power and feeling in one hand. He thus converted his emotional tension into a physical symptom which made it impossible for him to do his disagreeable duties. Other patients may in a similar way become deaf, blind, speechless, paralysed and so on. There is no symptom, visceral or somatic, that may not originate in the psyche.

The patients who exhibit such symptoms are of a peculiar constitution and about this nothing can be done, but a great deal can be done about the conditions which act as irritants or stimuli and which therefore are the causes of the excessive tension and thus the causes of the immediate illness. The body within itself is making constant readjustments to maintain a state of balance. For example the temperature, regardless of circumstances, fluctuates very little. Similarly the individual has also constantly to make readjustments between himself and his environment. Some personalities find adjustment possible only within a restricted range, just as a walker on an icy street finds that he can sway only so far to one side or the other. Beyond that range equilibrium is lost and can be remained only by vigorous effort. The neuropath cannot put forth that effort. He is like the walker who has swayed too far, has fallen and remains fallen. That is an adjustment of a sort but it is an unsatisfactory one and corresponds to a neurosis. A detour, special shoes or a cane might have averted the fall.

It is the aim of everyone to find security and satisfaction. Security has to do chiefly with work

and the ability to find food and shelter. Satisfaction includes "getting on" in the world both in a business and in a social way but its principal source is in the family. It has to do with the relationships between husband and wife, between parent and children, between siblings, between "in-laws", between lovers. In short it has to do with love and life in the most intimate aspects of these affairs. Adverse circumstances in the spheres of security and satisfaction are potent stimulators of emotional reactions which provoke the hypersensitive nervous mechanism into producing somatic and visceral symptoms. Faced by situations with which he cannot cope the neuropath flees into the arms of illness. It is obvious that the investigation of every case must include a study of these factors, which are so often the *causa causans* of the ill-health.

Because psyche and soma are essentially one it is obvious that all medicine is psychosomatic but the term is used in a more restricted sense to indicate the borderland between "pure" organic medicine and "pure" psychiatry. The two elements—physical and psychological—are seldom blended in equal degree and either may be insignificant in a given case. Thus in advanced malignant disease of the body the psychic element is not of great importance. Hope may defer, and despair may hasten, the end but only by a little for the end is inevitable. Similarly in malignant disease of the mind, the physical changes in schizophrenia are not of prime importance when compared with the mental condition. Such cases are "major" cases which must be dealt with by the surgical specialist on the one hand and by the psychiatric specialist on the other. But just as the general surgeon is competent to handle most of the conditions which confront him, so should the general physician be able to deal with the majority of the psychosomatic problems which he meets daily.

And he can do this if he is willing to spend the time necessary for the investigation. The history has to be expanded to include the details of the patient's life as an individual, as the member of a family and as a member of society. His hopes and fears, his successes and failures, his likes and dislikes, how he works and plays—these give information far more valuable than a bare recital of his aches and pains. Careful physical examination is necessary and laboratory and mechanical tests should not be omitted. With all the data before him the investigator is in a position to say whether or not disease is present and to what degree illness is responsible for the symptoms. Then he must proceed to explain the mechanism and significance of the complaints. It takes time but the time is well spent for only in this way can many be helped. Besides it

makes practice much more interesting as well as making treatment more effective. The "great error" of which Socrates spoke twenty-five hundred years ago has persisted for all these centuries but now is being remedied.

Useful Reading

Psychosomatic Medicine. Weiss & English.
Psychosomatic Diagnosis. Dunbar.
The Patient as a Person. Robinson.
Patients Have Families. Richardson.
The Therapy of the Neuroses and Psychoneuroses. Kraines. J. C. H.

Letters to The Editor

The College of Physicians and Surgeons of
Manitoba

Winnipeg, Man.,
Nov. 3rd, 1945.

Dr. J. C. Hossack,
Editor,
Manitoba Medical Review,
510 Medical Arts Bldg.,
Winnipeg, Man.

Dear Dr. Hossack:

Referring to your letter of June 29th, 1945, and to our various conversations regarding the publication of the proceedings of the Council of the College of Physicians and Surgeons in the Manitoba Medical Review, I submitted this proposal to the Council meeting on October 17, 1945. Your suggestion was well received, and the following resolution was passed:

"THAT the proceedings of our meetings be published in the Manitoba Medical Review, and that the Registrar be instructed to obtain the necessary reprints for disposition to those requesting them." CARRIED.

As soon as I have the minutes in proper form, I shall submit them to you.

Hoping this will be satisfactory, I remain,

Yours truly,

W. G. CAMPBELL,
Registrar.

November 12th, 1945.

To the Editor of the
Manitoba Medical Review.
Sir:

The March issue of the Manitoba Medical Review carried a review of a book entitled "The Marihuana Problem in the City of New York, by the New York City Mayor's Committee on Marihuana."

The findings of this Committee upon the harmfulness of Marihuana were at variance with many individuals who have had considerable more experience with the effects of the drug. I am taking the liberty of quoting a portion of an editorial

from the J. M. A., 28th April, 1945, upon this book:

"The book states unqualifiedly to the public that the use of this narcotic does not lead to physical, mental or moral degeneration and that permanent deleterious effects from its continued use were not observed on 77 prisoners. This statement has already done great harm to the cause of law enforcement. Public officials will do well to disregard this unscientific, uncritical study, and continue to regard marihuana as a menace wherever it is purveyed."

A leading member of the medical profession who has been in close touch with the narcotic problem in Canada for many years offers the following comment upon the findings of the Mayor's Committee, New York:

"I felt that it might not be altogether inappropriate for me to remark that strong contrary opinions are, in fact, held by a number of persons whose contact with the subject for many years has been close and whose qualifications to express an opinion are unquestionable."

Respectfully yours,

D. C. AIKENHEAD, M.D.

The Writers in This Issue

Richard O. Burrell, M.D., L.M.C.C., Ch.M., F.R.C.S. (Edin.), F.R.C.S. (C.).

Assistant Surgeon, St. Boniface Hospital. Demonstrator in Surgery, University of Manitoba.

Dr. Wallace Grant,

Psychopathic Hospital, Winnipeg.

Leonard Greenberg,

Interne, Children's Hospital, Winnipeg.

A. A. Klass, B.A., M.D. (Man.), F.R.C.S. (Edin.).

Obituary

Dr. Noble Garfield Trimble

Dr. Noble Garfield Trimble, known both as physician and sportsman, died on November 21 in St. Anthony's Hospital, The Pas. While operating at the hospital he developed coronary thrombosis and died shortly after, at the age of 54.

Born in Carleton County, Ontario, he came to Winnipeg in 1903. Graduating in medicine in 1914 he practised at Wawanesa, Dauphin and The Pas. There he had as partners Dr. M. K. Brandt and his son. Dr. John Trimble, a recent graduate of Edinburgh, Scotland.

As a sportsman Dr. Trimble played football, was an enthusiastic hunter and curler. From 1910 to 1940 he missed only one bonspiel in Winnipeg. He was first vice-president of the Manitoba Curling Association in 1925-26, and an honorary member of that body and The Pas Curling Club.

He is survived by his widow and his son.

Big in heart as in stature he had many friends and his passing is deeply regretted.



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Each two teaspoonfuls (8 c.c.) supply—

✓ Thiamine Hydrochloride.....	1	mgm
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✓ Niacin.....	10	mgm
✓ Pyridoxine Hydrochloride.....	1	mgm
✓ Calcium Pantothenate.....	5	mgm
✓ Choline.....	24	mgm
✓ Inositol.....	14.4	mgm
✓ Biotin Vitamers.....	0.008	mgm

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Unidentified factors as found in rice bran extract.

Suggested intake—

2 to 4 teaspoonfuls (8 c.c. to 16 c.c.) daily or as indicated.

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Personal Notes and Social News

Dr. M. Ellen Douglass, assistant district commissioner of the St. John Ambulance Association, with a record of thirty-one years' service in Canada and overseas, was recently awarded a third bar to her service medal.

Major Ian S. MacLean, R.C.A.M.C., son of Dr. Neil John MacLean, has been mentioned in dispatches. The award is in recognition of gallant and distinguished services.

Dr. A. F. L. Matheson, recently demobilized from the R.C.A.F., has now resumed civilian practice at his former office, 303 Medical Arts Building.

Dr. Fred A. Walton, 3A Locarno Apts., Roslyn Road, returned to Canada, September 19th, has been demobilized from the R.C.A.M.C., and re-entered civilian practice.

Major G. C. Fairfield, R.C.A.M.C., recently demobilized after five and one-half years service in the armed forces, four of which were overseas, has re-entered civilian practice at Portage la Prairie, Man.

Captain S. Malkin, R.C.A.M.C., recently returned from over three years overseas service, has resumed civilian practice as an associate at the Hollenberg Clinic, 701 Boyd Building.

Lieut.-Colonel M. B. Perrin, recently demobilized from the R.C.A.M.C., after four years overseas service, has resumed civilian practice of surgery at 614 Medical Arts Building.

The executive and members of the Manitoba Medical Association extend their deepest sympathy to Dr. E. L. Ross on the loss of his mother, widow of the late Dr. R. L. Ross, who died at London, Ont., on Wednesday, November 28th.

Dr. Louis Boxer (U.M. '32), recently returned from overseas after more than four years service with the R.C.A.M.C., was married to Ruth, daughter of Mr. and Mrs. Rosenberg, in Montreal, on November 28th.

Squadron Leader P. C. Lund, R.C.A.F., has been demobilized after four and a half years service—two years of which he was Chief Anaesthetist at Deer Lodge Military Hospital. Dr. Lund will continue in that capacity as a civilian practitioner.

Dr. J. S. Holowin of Morris, Man., was recently elected councillor for Ward 2 of that Town.

Surgeon-Commander and Mrs. Wendell Macleod, formerly of Montreal, have taken up residence in Winnipeg. Following his discharge he will be attached to the staffs of the Winnipeg Clinic and the Medical College. Mrs. Macleod, who was the former Dr. Jessie A. McGeachy, will also join the staff of the Winnipeg Clinic.

The sympathy of the executive and members of this association is extended to Mrs. Trimble and her son, of The Pas, on the loss of husband and father, Dr. N. G. Trimble, who died suddenly on November 21st.

Captain V. L. Rosenfield, R.C.A.M.C., after more than three years service in the armed forces, has resumed civilian practice at 405 Avenue Building.

Ft.-Lieutenant Donald N. C. McIntyre, after six years service with the forces, is now demobilized and has taken up civilian practice in association with his father, Dr. D. F. McIntyre, at 303 Medical Arts Building.

Sympathies are extended to Dr. Ross Mitchell, Mrs. J. R. Davidson and Mrs. Digby Wheeler for the recent loss of their father, Col. James B. Mitchell. Col. Mitchell died on November 14, one month after celebrating his 93rd birthday. He was an original member of the Royal North West Mounted Police, and served as O.C. of the 100th Grenadiers in the war of 1914-18.

Major Paul K. Tisdale, after five years' service in the R.C.A.M.C., is now on the staff of the Deer Lodge Military Hospital.

Dr. E. Bustin, formerly at Pine Falls, Man., is now practicing at Bienfait, Sask.

Dr. Ruvyn Lyons, following his discharge from active service, has resumed the practice of Obstetrics and Gynecology at 606 Boyd Building.

Squadron Leader Roper G. Cadham, recently demobilized from the R.C.A.F., has resumed his former position as deputy health officer for the City of Winnipeg.

Dr. R. B. Collins, recently of Clanwilliam, Man., is now practicing at 232 Centennial Street, Winnipeg.

PEPTIC ULCER

in the Army

"Capt. Alexander Rush of the Army Medical Corps reveals that patients suspected of peptic ulcer, among the American troops in the Pacific, were given hourly feedings of equal parts of evaporated milk and water, to which soda bicarbonate had been added, drop by drop, according to Dr. Winkenstein's method, for 48 hours. Prompt and gratifying results followed."—N.Y. Journal American, Oct. 21, 1943; Report on Graduate Fortnight Session, New York Academy of Medicine, Oct., 1943.

Pepitic ulcer, according to a writer in the American Journal of Digestive Diseases, "plays the leading role in digestive diseases in the military service. It leads all other gastro-intestinal conditions as a cause for discharge from the army."

The recognized value of evaporated milk in the management of peptic ulcer lends importance to the fact that Carnation Milk, an evaporated milk of uniform and unquestionably high quality, is everywhere available to physicians and their patients.

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Manitoba Medical Service

From time to time doctors tell me that many of their patients have joined the M.M.S., and that they now receive smaller fees for the same kind of services that they rendered in the past. It is a very rare thing for a doctor to report that the patient whose illness he treats, suffered from that same illness long before joining the M.M.S. Doctors have been asked to co-operate in stopping abuses, and reporting such cases is the only remedy; incidentally the doctor will benefit, for he will then be able to collect his ordinary fees in lieu of those which M.M.S., if liable, would have paid.

E. S. Moorhead, M.B.,
Medical Director.

Complaints come to the office from doctors, but complaints also come from patients about doctors, and I am going to mention a couple of them; I should state that the complaints from the latter are less frequent, but it must be remembered that an individual with a grievance can influence a group where we are trying to get more members. The similarity of the complaints suggests that they cannot all have been invented. "Why didn't you tell me that you belonged to the M.M.S. before I began this examination?" and also, "Oh, the M.M.S. only pays me half my fee for doing this operation." If the public once gets the idea that it occupies in doctor's eyes the same relative position that the panel patient does in British Health Insurance, then the service will be discredited, regardless of the protests by the profession that rich and poor get the best they can give. One would almost expect that some dissatisfied doctors would have cancelled their contracts but so far no one has.

Mr. A. was requested to put his complaint in writing before we would take any action.

Dear Sir: "I have been a member of the Manitoba Hospital Service Association since November 15th, 1939, and have on two occasions received benefits from the Association and cannot speak too highly of the advantages.

I have also been a member of the Manitoba Medical Service since October, 1944, and while I appreciate the benefits of this plan, I am sorry to state that I have not received the same courtesy and co-operation from a Medical Member as I have experienced in the M. H. S. A.

Since Mrs. A. advised Dr. Blank that we were in the M.M.S. he immediately advised her that since I was making \$2,400.00 per year, it would not pay me to belong to the association, the Plan was alright for the low income people, but not for me.

Late in the summer of 1945, Dr. Blank forwarded me an itemized statement and of this balance unpaid \$25.00 he advised was a deferred payment by the Manitoba Medical Service owing to insufficient funds in the Service, and if and when the deferred payment is received refund will be promptly made.

We were presented with twin children in the late summer and since their discharge from the hospital the doctor has not made his post-natal call. We telephoned the doctor about two weeks ago and asked him to call, as you will appreciate that a visit from the doctor to a mother with twins is certainly helpful in view of the fact that the children were not as yet settled down and there were a number of questions which Mrs. A. would have liked to have answered. His reply was that unless the children were sick a visit from him would do no good.

I have not as yet returned Dr. Blank's account but as a result of the above we are thoroughly disgusted with the manner in which the doctor handled the whole case; in fact, Mrs. A. does not wish to go back to him for any further medical attention.

I wish to point out that your association has been 100% behind the subscriber in both instances referred to in this letter, and trust that you will treat the contents of this letter strictly confidential."

(Signed) "A".

Those of you who have read your contract will appreciate that you have no claim against the patient for the deferred liability, and this clause is always shown to anyone who has received such a bill from a medical member.

E. S. Moorhead, M.B.,
Medical Director.

I have been studying carefully the organisation regulations, etc., of the major medical service plans in Canada, and with the exception of the B.C. plan of which I have not received sufficient details, I believe that the Manitoba service more nearly approaches the proposed methods of national or provincial health insurance than do either Associated Medical Services of Toronto, etc., or the Hollinger plan. Therefore, the more interest we take and the more evidence we give of our practical knowledge, the greater will be our influence when round table discussions or details begin. Mr. Richardson, your office manager in charge of administration, devotes much time to preparing statistical records, and these are valuable to C.M.A. officials and others. Below you will read some recent and interesting findings.

E. S. Moorhead, M.B.,
Medical Director.



★ Unwilling to reveal, even to a physician, the presence of any abnormal rectal condition—and too often dreading surgery—those who suffer from hemorrhoids do so in silence. Whenever non-surgical treatment is indicated Anusol will be found a safe, sane and effective therapeutic treatment.

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Notes by Mr. A. G. Richardson, Office Manager

Medical membership as at October 31st, 1945, was 24,488, an increase from the previous month of 868.

Of this total 2,802 have the "A" or Surgical Plan and 19,686 the "B" or complete Medical and Surgical coverage.

Accounts to the amount of \$27,292.13 were passed and paid on a 67.2% basis or \$18,338.30.

2,798 Doctors' claims were approved, an increase of 613 from the previous month, and as yet the bulk of these are received between the 1st and 10th of the month. I would appreciate your co-operation in having these claims sent in as soon as the case is finished should it be before the end of the month, in order to decrease administration load when statistical and other figures are required.

The staff and myself wish to thank the Doctors for their time and assistance when it is necessary for us to procure additional information.

In reviewing our September, 1945, figures it is interesting to note that there are now 252 Doctors with us. Of these there are 159 General Practitioners who were allotted 50.34% of the total claims or \$74.54 average per Doctor. The 93 Specialists received on an average \$125.73. We have six Clinics of 35 Doctors in all who were allotted 27.9% of total claims or \$187.76 average per Doctor.

Occasionally a Doctor, on receipt of a letter over my signature, will criticize me for pretending to have a knowledge of diseases and their treatment. In dealing with so many claims, it must be realized that the correspondence is heavy and it would be an utter impossibility for our Medical Director to write all these letters. They are written under instructions from Dr. Moorhead.

Locum Tenens Wanted

Dr. W. M. Colert of Morden, Man., and Dr. S. S. Toni of Altona, Man., each desire a locum tenens for the months of January, February and March, to enable them to attend a post-graduate course. Further particulars may be obtained by writing the doctors direct.

The heart would never fail, if its muscles were never given more work to do than it can perform without exhaustion.—James Mackenzie.

In spite of all our advance in medical knowledge, it is still true that it is more important to know what sort of patient has a disease than what sort of disease a patient has.—James J. Walsh.

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Lokol Lozenges contain 1000 LU. of calcium penicillin—they are used for the treatment of all infections of the throat and mouth where penicillin is indicated. Lokol Lozenges are held in the mouth until dissolved, providing bacteriostasis for over one hour. They may be used as frequently as needed—they are pleasant tasting—they are stable under normal conditions and they are economical for the patient to use.

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3. Low total solids—*Discomfort and local reactions occur very infrequently because of the high purity of the product.*

Liver Extract Injectable (15 units per cc.) as prepared by the Connaught Laboratories is supplied in packages containing *single* 5-cc. vials and in multiple packages containing *five* 5-cc. vials. The larger package is for the convenience of hospitals and clinics, and is also available to physicians.

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Department of Health and Public Welfare
Comparisons Communicable Diseases — Manitoba (Whites and Indians)

DISEASES	1945		1944		TOTALS	
	Oct. 7 to Nov. 3	Sept. 9 to Oct. 6	Oct. 8 to Nov. 4	Sept. 10 to Oct. 7	Jan. 1 to Nov. 3, '45	Jan. 1 to Nov. 4, '44
Anterior Poliomyelitis	1	3	7	28	18	87
Chickenpox	178	54	162	36	1862	1819
Diphtheria	14	24	17	15	236	168
Diphtheria Carriers	—	3	2	6	32	29
Dysentery—Amoebic	—	1	—	—	1	—
Dysentery—Bacillary	4	5	1	31	17	64
Erysipelas	1	2	8	4	41	61
Encephalitis	—	1	1	2	6	11
Influenza	3	6	14	5	132	223
Measles	10	3	82	53	482	5288
Measles—German	—	1	3	3	36	240
Meningococcal Meningitis	2	1	2	2	12	21
Mumps	59	34	9	15	1313	1472
Ophthalmia Neonatorum	—	—	—	—	—	1
Pneumonia—Lobar	7	3	13	5	98	164
Puerperal Fever	—	—	—	—	—	6
Scarlet Fever	79	47	85	64	632	1969
Septic Sore Throat	6	3	—	1	27	23
Smallpox	—	—	—	—	—	—
Tetanus	—	—	—	1	2	2
Trachoma	—	1	—	—	5	—
Tuberculosis	80	56	48	53	596	591
Typhoid Fever	2	3	1	1	40	44
Typhoid Paratyphoid	—	—	—	—	6	—
Typhoid Carriers	—	—	—	—	4	1
Undulant Fever	—	—	—	1	9	7
Whooping Cough	21	17	53	42	263	394
Gonorrhoea	229	214	152	126	1896	1468
Syphilis	55	41	54	53	600	564
Actinomycosis	—	—	—	—	—	2
Diarrhoea and Enteritis, under 1 yr.	—	1	—	—	1	—

DISEASES

*Approximate populations.

	*726,000 Manitoba	*3,825,000 Ontario	*906,000 Saskatchewan	*2,972,000 Minnesota	*641,000 North Dakota
Actinomycosis	—	—	—	—	—
Anterior Poliomyelitis	3	17	5	51	1
Chickenpox	178	641	178	—	10
Diphtheria	14	25	—	29	13
Diphtheria Carriers	1	—	—	—	—
Dysentery—Amoebic	—	—	—	3	—
Dysentery—Bacillary	4	—	—	1	—
Encephalitis, Epidemica	—	—	—	—	—
Erysipelas	1	5	—	—	—
Influenza	3	28	—	—	7
Jaundice—Infectious	—	9	7	—	—
Measles	10	744	13	20	13
Measles—German	—	48	5	—	—
Meningococcal Meningitis	2	7	—	9	1
Mumps	59	233	14	—	—
Ophthalmia Neonatorum	—	—	—	—	—
Pneumonia—Lobar	7	—	—	—	—
Scarlet Fever	79	292	29	115	67
Septic Sore Throat	6	8	—	—	—
Smallpox	—	—	—	—	2
Tetanus	—	—	1	—	—
Tuberculosis	74	187	33	7	15
Trachoma	—	—	4	—	2
Typhoid Fever	—	3	—	3	3
Typhoid Carriers	—	—	1	—	—
Typhoid Para-Typhoid	—	2	—	—	1
Undulant Fever	—	4	—	7	2
Whooping Cough	21	165	3	67	1
Gonorrhoea	229	748	—	—	62
Syphilis	55	525	—	—	9
Diarrhoea and Enteritis, Under one year	1	—	—	—	—

None of the communicable diseases, excepting gonorrhoea, reported in this period show an increase over the usual incidence. Venereal diseases are a problem and will continue to be one for some time. A concerted effort on the part of all can and will decrease the numbers of cases.

Have you read the editorial in the November 1945 issue of The Canadian Medical Association Journal on "The Relation of German Measles to Congenital Cataracts and other Congenital Deformities"? It is quite interesting and shows the serious effects a comparatively mild disease may have. Luckily not many pregnant women are attacked by Rubella as they have usually had the disease in childhood.

DEATHS FROM COMMUNICABLE DISEASES
September, 1945

Urban—Cancer, 44; Diphtheria, 1; Influenza, 1; Lethargic Encephalitis, 1; Pneumonia, Lobar, 1; Pneumonia (other forms), 6; Syphilis, 4; Tuberculosis, 6. (64) Other deaths under 1 year, 12. Other deaths over 1 year, 169. Stillbirths, 13. Total, 258.

Rural—Cancer, 22; Diphtheria, 1; Influenza, 1; Pneumonia, Lobar, 1; Pneumonia (other forms), 7; Syphilis, 2; Tuberculosis, 22; Whooping Cough, 2. (58) Other deaths under 1 year, 17. Other deaths, over 1 year, 133. Stillbirths, 14. Total, 222.

Indians—Influenza, 8; Measles, 2; Pneumonia (other forms), 8; Syphilis, 1; Tuberculosis, 16; Whooping Cough, 3; Dysentery (27a), 1. Other deaths under 1 year, 5. Other deaths over 1 year, 8. Total, 52.

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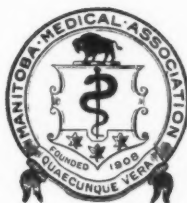
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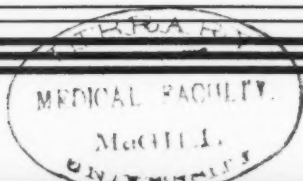


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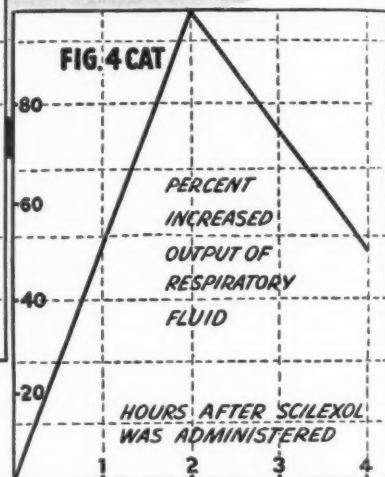
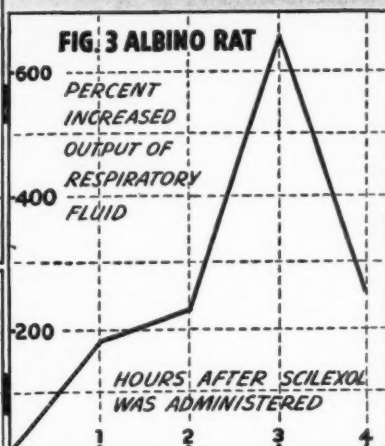
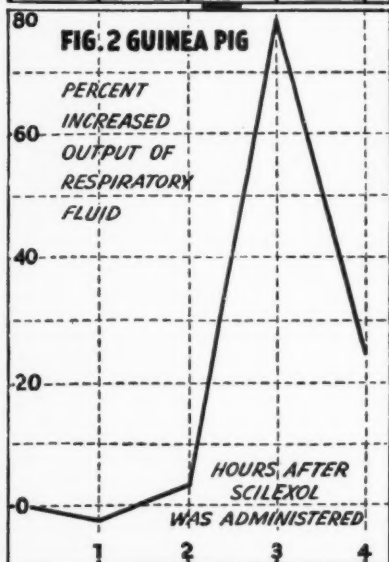
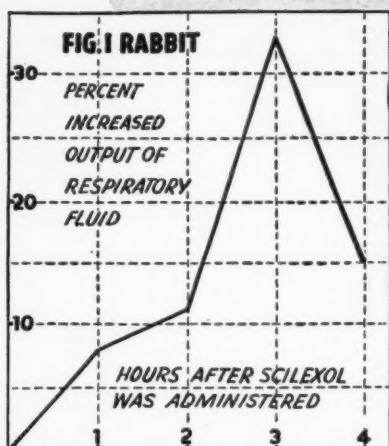
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